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NEWS	1			Web Page for STN Seminar Schedule - N. America
NEWS	2	OCT	02	CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	3	OCT	19	BEILSTEIN updated with new compounds
NEWS	4	NOV	15	Derwent Indian patent publication number format enhanced
NEWS	5	NOV	19	WPIX enhanced with XML display format
NEWS	6	NOV	30	ICSD reloaded with enhancements
NEWS	7	DEC	04	LINPADOCDB now available on STN
NEWS	8	DEC	14	BEILSTEIN pricing structure to change
NEWS	9	DEC	17	USPATOLD added to additional database clusters
NEWS	10	DEC	17	IMSDRUGCONF removed from database clusters and STN
NEWS	11	DEC	17	DGENE now includes more than 10 million sequences
NEWS	12	DEC	17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS	13	DEC	17	MEDLINE and LMEALINE updated with 2008 MeSH vocabulary
NEWS	14	DEC	17	CA/CAPLUS enhanced with new custom IPC display formats
NEWS	15	DEC	17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS	16	JAN	02	STN pricing information for 2008 now available
NEWS	17	JAN	16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	18	JAN	28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	19	JAN	28	MARPAT searching enhanced
NEWS	20	JAN	28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	21	JAN	28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	22	JAN	28	MEDLINE and LMEALINE reloaded with enhancements
NEWS	23	FEB	08	STN Express, Version 8.3, now available
NEWS	24	FEB	20	PCI now available as a replacement to DPCI
NEWS	25	FEB	25	IFIREF reloaded with enhancements
NEWS	26	FEB	25	IMSPRODUCT reloaded with enhancements
NEWS	27	FEB	29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability

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NEWS LOGIN      Welcome Banner and News Items  
NEWS IPC8        For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 21:37:42 ON 16 MAR 2008

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 21:37:52 ON 16 MAR 2008  
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STRUCTURE FILE UPDATES: 14 MAR 2008 HIGHEST RN 1008127-41-0  
DICTIONARY FILE UPDATES: 14 MAR 2008 HIGHEST RN 1008127-41-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>  
Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\awnvbgt.str

L1            STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1            STR

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 21:41:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 5266 TO ITERATE

38.0% PROCESSED 2000 ITERATIONS 28 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 100969 TO 109671

PROJECTED ANSWERS: 959 TO 1989

L2 28 SEA SSS SAM L1

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 21:41:25 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 106625 TO ITERATE

100.0% PROCESSED 106625 ITERATIONS 1450 ANSWERS  
SEARCH TIME: 00.00.01

L3 1450 SEA SSS FUL L1

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

181.12

181.33

FILE 'HCAPLUS' ENTERED AT 21:41:46 ON 16 MAR 2008

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FILE COVERS 1907 - 16 Mar 2008 VOL 148 ISS 12

FILE LAST UPDATED: 14 Mar 2008 (20080314/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4 527 L3

=> d 14, ibib abs fhitr, 1-527

L4 ANSWER 1 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1454593 HCAPLUS

DOCUMENT NUMBER: 148:70192

TITLE: Therapy using cytokine inhibitors

INVENTOR(S): Crowley, Constance A.; Delaet, Nancy G. J.; Ernst, Justin; Grove, Carrie Gail; Hepburn, Bonnie; King, Bernard; Larson, Christopher J.; Miller, Stephen; Pryor, Kent; Shuster, Lewis J.

PATENT ASSIGNEE(S): Kemia Inc., USA

SOURCE: PCT Int. Appl., 251pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007146712	A2	20071221	WO 2007-US70547	20070606
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2006-812268P P 20060609  
US 2006-833078P P 20060724  
US 2006-835270P P 20060803

OTHER SOURCE(S): MARPAT 148:70192

AB The invention discloses methods for treating, preventing, modifying and managing cytokine-mediated disorders or related disorders, which comprise the administration of a compound, such as a cytokine inhibitor, alone or in combination with known therapeutics. The invention also relates to pharmaceutical compns. and dosing regimens using the disclosed compds. In particular, the invention relates to the use of compds. as disclosed herein, optionally in conjunction with other therapies, for the treatment of autoimmune diseases, inflammatory diseases, cardiovascular diseases, and cancer.

IT 848146-09-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

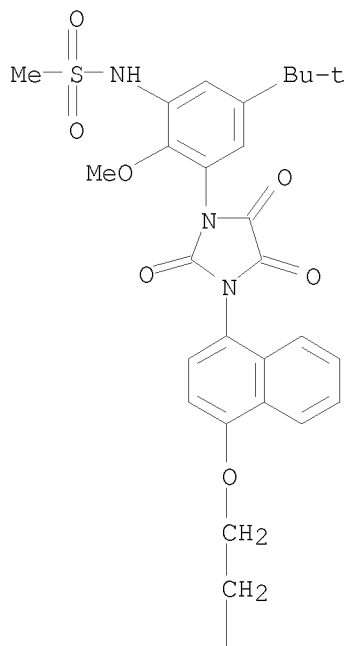
Updated Search



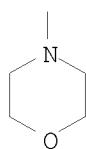
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(therapy using cytokine inhibitors)  
RN 848146-09-8 HCAPLUS  
CN Methanesulfonamide, N-[5-(1,1-dimethylethyl)-2-methoxy-3-[3-[4-[2-(4-morpholinyl)ethoxy]-1-naphthalenyl]-2,4,5-trioxo-1-imidazolidinyl]phenyl]-  
(CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L4 ANSWER 2 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:1242575 HCAPLUS  
DOCUMENT NUMBER: 147:502363  
TITLE: Preparation of diarylthiohydantoins as androgen  
receptor antagonists for the treatment of hormone  
refractory prostate cancer  
INVENTOR(S): Jung, Michael; Yoo, Dongwon; Sawyers, Charles L.;  
Tran, Chris  
PATENT ASSIGNEE(S): Regents of the University of California, USA  
SOURCE: U.S. Pat. Appl. Publ., 63pp.  
CODEN: USXXCO

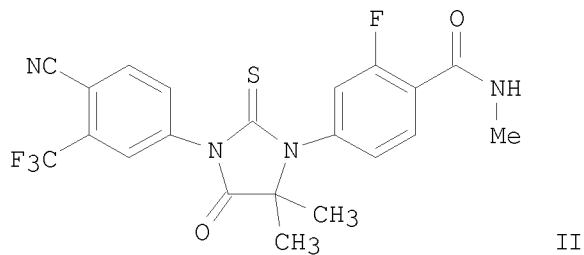
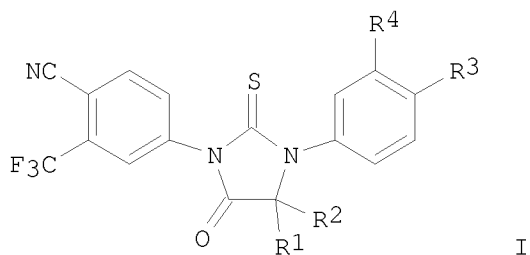
Updated Search

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DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007254933	A1	20071101	US 2007-730168	20070329
WO 2007127010	A2	20071108	WO 2007-US7854	20070329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2006-786837P P 20060329  
OTHER SOURCE(S): MARPAT 147:502363  
GI



AB Title compds. I [wherein R1, R2 = Me; R1 and R2 together with the carbon to which they are linked form a 4/5-membered cycloalkyl; R3 = carbamoyl, alkylcarbamoyl, carbamoylalkyl, etc.; R4 = H or F] were prepared as androgen receptor antagonists. For instance, II was synthesized in 25% yield by cyclization of 4-isothiocyano-2-trifluoromethylbenzonitrile (preparation

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given) with N-methyl-2-4-[(1,1-dimethylcyanomethyl)amino]benzamide (preparation given). Extensive biol. tests of I and related compds. were carried out, and their relationship with structures was reported. The invented compds. and their pharmaceutical compns. are useful for the treatment of hormone refractory prostate cancer.

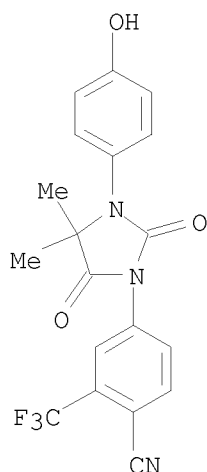
IT 915086-59-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diarylthiohydantoin as androgen receptor antagonists for treatment of hormone refractory prostate cancer)

RN 915086-59-8 HCAPLUS

CN Benzonitrile, 4-[3-(4-hydroxyphenyl)-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-2-(trifluoromethyl)- (CA INDEX NAME)



L4 ANSWER 3 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1090756 HCAPLUS

DOCUMENT NUMBER: 147:406815

TITLE: Preparation of S1P receptor modulating compounds in particular aryl-substituted 2-oxoimidazolidine derivatives as modulator of S1P receptor

INVENTOR(S): Saha, Ashis; Yu, Xiang Y.; Lobera, Mercedes; Lin, Jian; Cheruku, Srinivasa R.; Becker, Oren M.; Marantz, Yael; Schutz, Nili

PATENT ASSIGNEE(S): Epix Delaware, Inc., USA

SOURCE: PCT Int. Appl., 88pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2007109330	A2	20070927	WO 2007-US7037	20070321

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WO 2007109330 A3 20071122

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 2008015177

A1

20080117

US 2007-726356

20070321

PRIORITY APPLN. INFO.:

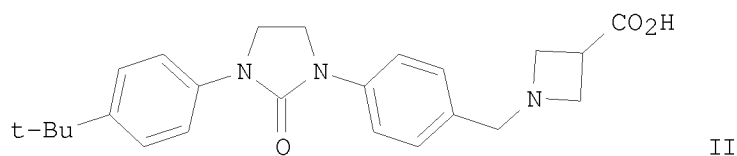
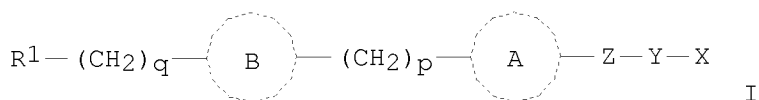
US 2006-784548P

P 20060321

OTHER SOURCE(S):

MARPAT 147:406815

GI



AB The invention relates to compds. that have activity as sphingosine-1-phosphate (S1P) receptor modulating agents and the use of such compds. to treat diseases associated with inappropriate S1P receptor activity. Compds. of formula I [A = (un)substituted aryl or heteroaryl; B = N-containing 5- to 6-membered heterocyclyl; X = CO<sub>2</sub>H, POH<sub>2</sub>, SO<sub>3</sub>H, SO<sub>2</sub>NH<sub>2</sub>, CONHSO<sub>3</sub>H and their derivs. or 1H-tetrazol-5-yl; Y = bond or (un)substituted (a)cyclic amine; Z = O, NH and derivs., S, SO, SO<sub>2</sub>, SO<sub>2</sub>NH and derivs., CO, CS, direct bond, etc.; p and q independently = 0-4], and their pharmaceutically acceptable salts, are prepared and disclosed as modulator of S1P receptor. Thus, e.g., II was prepared by the reaction of Me 4-aminobenzoate with 2-chloroethylisocyanate followed by cyclization to generate intermediate Me 4-(2-oxoimidazolidin-1-yl)benzoate, which underwent condensation with 1-tert-butyl-4-iodobenzene, hydrolysis, reduction and reductive amination with azetidine-3-carboxylic acid to give II. No detailed bioassays and biodata were given.

IT 950981-24-5P, 1-[4-[3-(4-tert-Butylphenyl)-2-oxoimidazolidin-1-yl]benzyl]azetidine-3-carboxylic acid

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of oxoimidazolidine derivs. as modulator of S1P receptor)

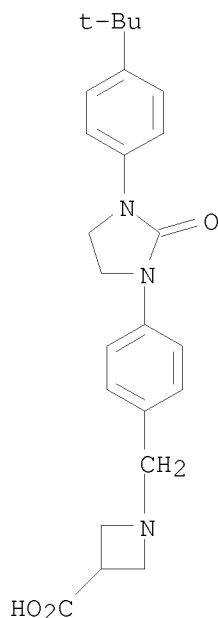
RN 950981-24-5 HCAPLUS

CN 3-Azetidinecarboxylic acid, 1-[[4-[3-[4-(1,1-dimethylethyl)phenyl]-2-oxo-1-

Updated Search

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imidazolidinyl]phenyl]methyl]- (CA INDEX NAME)



L4 ANSWER 4 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1025544 HCAPLUS

DOCUMENT NUMBER: 147:323017

TITLE: Preparation of aromatic compounds such as  
N-(2-phenoxy pyridin-5-yl) benzamides as collagen  
synthesis inhibitors for preventing and/or treating  
fibrosis

INVENTOR(S): Fukushima, Tae; Takemura, Noriaki; Tai, Kuninori;  
Nagao, Hitoshi; Ito, Nobuaki; Nakagawa, Takashi;  
Takasu, Hideki; Watanabe, Kenji; Matsumura, Shuji;  
Shizuta, Takuya; Sakamoto, Makoto; Suga, Keizo;  
Miyajima, Keisuke; Tanaka, Masanori; Sato, Hideaki;  
Tsutsui, Hironori; Yamada, Satoshi; Kojima, Hiroshi;  
Yasumura, Koichi; Oi, Naoto; Okuno, Tsuguhiro;  
Sugiyama, Kazuhisa; Kiyono, Kunihiro; Suzuki, Takashi;  
Akamatsu, Seiji; Kodama, Kenji; Yanagihara, Yasuo;  
Sumida, Takumi

PATENT ASSIGNEE(S): Ohtsuka Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 707pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007231005	A	20070913	JP 2007-21396	20070131

Updated Search

10501317

PRIORITY APPLN. INFO.:

JP 2006-25329

A 20060202

OTHER SOURCE(S):

MARPAT 147:323017

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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. I [X1 = N, CH; R1 = ZR6 (wherein Z = CO, CH(OH), etc.; R6 = 5-15 membered monocyclic, dicyclic, or tricyclic, saturated or unsatd. heterocyclic group having 1-4 N atoms, O atoms, or S atoms); R2 = H, halo or alkyl; Y = O, CO, CH(OH), alkylene, etc.; A = (un)substituted Ph or naphthyl] are prepared These compds. have an excellent effect of suppressing the generation of collagen and less side effects. They are useful for preventing and/or treating fibrosis, in particular lung fibrosis and hepatic fibrosis, and glomerulosclerosis. Thus, 4-[5-(4-trifluoromethylbenzoylamino)pyridin-2-yloxy]benzoic acid was condensed with with 1-benzylpiperazine to give compound (II). Collagen synthesis inhibitory activity was tested in human stellate cell line (LI90). For example, N-[6-[4-[4-[2-oxo-2-(4-piperonylpiperazin-1-yl)ethyl]piperidin-1-yl]phenoxy]pyridin-3-yl]-4-trifluoromethylbenzamide (III) showed IC50 of 0.0019  $\mu$ M in the above assay. A film coating tablet formulation containing III was prepared

IT 875698-26-3P

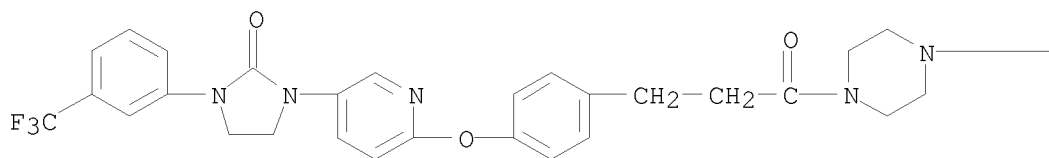
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(2-phenoxy-pyridin-5-yl) benzamides as collagen synthesis inhibitors for preventing and/or treating fibrosis)

RN 875698-26-3 HCAPLUS

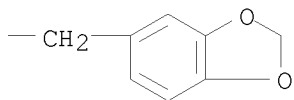
CN 2-Imidazolidinone, 1-[6-[4-[3-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]-3-oxopropyl]phenoxy]-3-pyridinyl]-3-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

PAGE 1-A



● HCl

PAGE 1-B

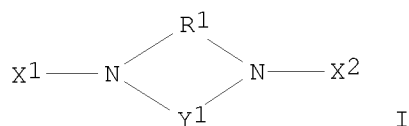


Updated Search

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L4 ANSWER 5 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:727698 HCAPLUS  
DOCUMENT NUMBER: 147:118640  
TITLE: Nitrogen-containing organic compound polycondensation  
catalysts and their use in aromatic polyester  
preparation  
INVENTOR(S): Nagano, Tatsuya; Takesaki, Hiroshi; Yamauchi, Koji  
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007169552	A	20070705	JP 2005-372060	20051226
PRIORITY APPLN. INFO.:			JP 2005-372060	20051226
OTHER SOURCE(S):	MARPAT	147:118640		
GI				



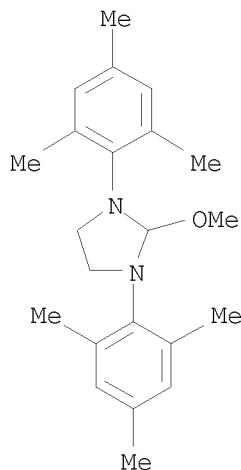
AB The N-containing organic compds. for polyester preparation catalysts are represented by the general formula I (X1, X2 = H, C1-30 hydrocarbyl; Y1 = C1-30 hydrocarbyl containing ether, ester, OH, alkoxy, and/or carboxyl; R1 = C2-30 hydrocarbyl). Aromatic polyesters are prepared from aromatic dicarboxylic acids

or their ester-forming derivs. and diols or their ester-forming derivs. by polycondensation catalyzed by the N-containing organic compds., wherein phosphoric acids, phosphonic acids, phosphinic acids, and/or phosphites are added to the reaction system in a desired step. Thus, terephthalic acid, ethylene glycol, and bis(hydroxyethyl) terephthalate were esterified at 250°, polycondensed in the presence of 1,3-bis(2,4,6-trimethylphenyl)-2-methoxyimidazolidine, Co acetate, Mn acetate, and ADK Stab PEP 36 [bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphate] to give the copolymer with intrinsic viscosity 0.67, haze 0.2%, L value 74, and b value 1.0.

IT 465543-01-5P  
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)  
(imidazolidine derivs. as polycondensation catalysts for preparation of aromatic polyesters with good color and min. foreign matters)  
RN 465543-01-5 HCAPLUS  
CN Imidazolidine, 2-methoxy-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 6 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:693404 HCAPLUS  
DOCUMENT NUMBER: 147:121821  
TITLE: Proton-conductive polymer electrolyte with parabanic acid structure and fuel cells using it  
INVENTOR(S): Aihara, Yuichi; Endo, Hiroko  
PATENT ASSIGNEE(S): Samsung Sdi Co., Ltd., S. Korea  
SOURCE: Jpn. Kokai Tokkyo Koho, 22pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007165046	A	20070628	JP 2005-357551	20051212
KR 695113	B1	20070314	KR 2006-29064	20060330
PRIORITY APPLN. INFO.:			JP 2005-357551	A 20051212
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title electrolyte has a mol. structure represented by I, II, III, or IV, (R1 = sulfonated phenylene, sulfonated and methylated biphenylene, sulfonated stilbene-diyl; n1 = 3-100,000; R2 = -C6H4-CH2-C6H4-, -C6H4-O-C6H4-; n2 = 1-100,000; m2 = 1-100,000; n3 = 2-50,000; n4 = 1-30,000). The electrolyte has high proton conductivity, heat resistance, and mech. strength. Fuel cells using the electrolyte have long life even under low humidity conditions.

IT 942505-73-9P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material)

Updated Search



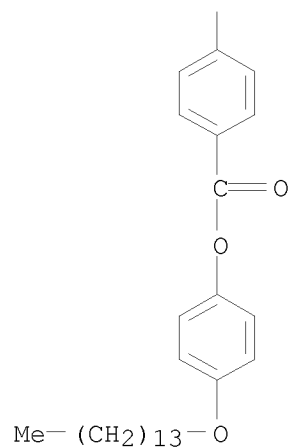
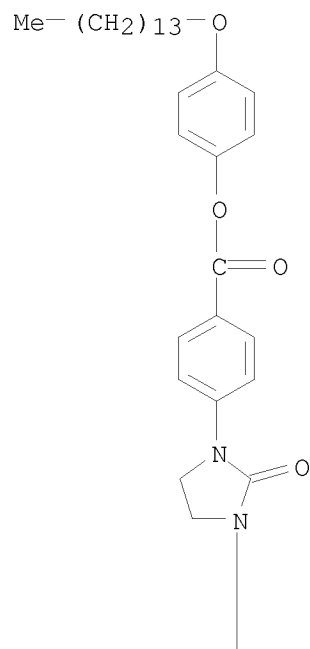
10501317

use); PREP (Preparation); USES (Uses)  
(proton-conductive polymer electrolyte with polyparabanic acid  
structure for high mech. strength for fuel cells)  
RN 942505-73-9 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-  
phenylene(2,4,5-trioxo-1,3-imidazolidinediyl)(3-sulfo-1,4-phenylene)-1,2-  
ethenediyl(2-sulfo-1,4-phenylene)] (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 7 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:663374 HCAPLUS  
DOCUMENT NUMBER: 147:288750  
TITLE: Cyclic ureas as novel building blocks for bent-core  
liquid crystals  
AUTHOR(S): Glettner, Benjamin; Hein, Sara; Reddy, R. Amaranatha;  
Baumeister, Ute; Tschierske, Carsten  
CORPORATE SOURCE: Institute of Chemistry, Organic Chemistry,  
Martin-Luther-University Halle-Wittenberg, Halle,  
D-06120, Germany  
SOURCE: Chemical Communications (Cambridge, United Kingdom)  
(2007), (25), 2596-2598  
CODEN: CHCOFS; ISSN: 1359-7345  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 147:288750  
AB Cyclic ureas represent a new class of bent-core liquid crystals which,  
depending on the ring size and other structural parameters, can form a  
series of polar (ferroelec. and antiferroelec.), as well as non-polar,  
tilted and non-tilted smectic and undulated smectic phases.  
IT 946123-65-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(bent-core liquid crystals from cyclic ureas as novel building blocks)  
RN 946123-65-5 HCAPLUS  
CN Benzoic acid, 4,4'-(2-oxo-1,3-imidazolidinediyl)bis-, 1,1'-bis[4-  
(tetradecyloxy)phenyl] ester (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:652190 HCAPLUS

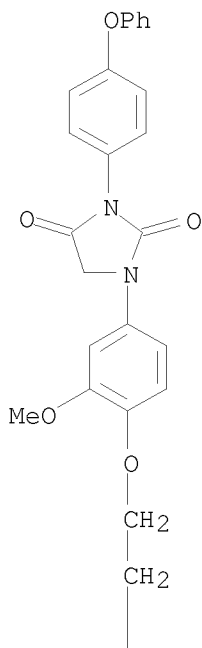
DOCUMENT NUMBER: 147:277517

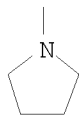
TITLE: Design and synthesis of novel hydantoin-containing melanin-concentrating hormone receptor antagonists

10501317

AUTHOR(S): Balavoine, Fabrice; Malabre, Patrice; Alleaume, Thierry; Rey, Astrid; Cherfils, Valerie; Jeanneton, Olivier; Seigneurin-Venin, Sophie; Revah, Frederic  
CORPORATE SOURCE: Villebon sur Yvette, 91951, Fr.  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(13), 3754-3759  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 147:277517  
AB We report here new chemical series acting as antagonists of melanin-concentrating hormone receptor 1 (MCHR-1). Synthesis and structure-activity relationships are described leading to the identification of compds. with optimized in vitro pharmacol. and in vitro ADME profiles. In vivo activity has been demonstrated in animal models of food intake and depression.  
IT 923030-45-9P  
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of hydantoin-containing heterocyclic compds. using amidation and heterocyclization as key steps, and their antiobesity activity as melanin-concentrating hormone receptor antagonist and SAR)  
RN 923030-45-9 HCAPLUS  
CN 2,4-Imidazolidinedione, 1-[3-methoxy-4-[2-(1-pyrrolidinyl)ethoxy]phenyl]-3-(4-phenoxyphenyl)- (CA INDEX NAME)

PAGE 1-A





REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:644412 HCAPLUS

DOCUMENT NUMBER: 147:72807

TITLE: Preparation of N-(2-phenoxy-pyridin-5-yl) benzamides and their analogs for treating cancer

INVENTOR(S): Matsuyama, Hironori; Ohnishi, Kenji; Nakagawa, Takashi; Takasu, Hideki; Sakamoto, Makoto; Higuchi, Kumi; Miyajima, Keisuke; Yamada, Satoshi; Motoyama, Masaaki; Kojima, Yutaka; Yasumura, Koichi; Kodama, Takeshi; Otsuji, Shun; Kan, Keizo; Sumida, Takumi

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 1110pp.

CODEN: PIXXD2

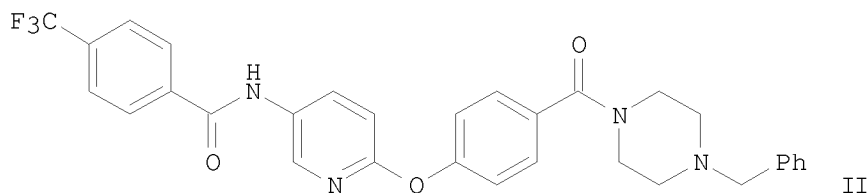
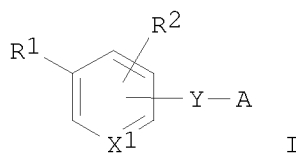
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007066784	A2	20070614	WO 2006-JP324610	20061204
WO 2007066784	A3	20071025		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
JP 2007182433	A	20070719	JP 2006-327612	20061204
PRIORITY APPLN. INFO.:			JP 2005-351255	A 20051205
OTHER SOURCE(S):	MARPAT 147:72807			
GI				



AB The title compds. I [X<sup>1</sup> = N, CH; R<sup>1</sup> = ZR<sup>6</sup> (wherein Z = CO, CH(OH), etc.; R<sup>6</sup> = 5-15 membered monocyclic, dicyclic, or tricyclic, saturated or unsatd. heterocyclic group having 1-4 N atoms, O atoms, or S atoms); R<sup>2</sup> = H, halo or alkyl; Y = O, CO, CH(OH), alkylene, etc.; A = (un)substituted Ph, naphthyl], useful as antitumor agents, were prepared and formulated. Thus, reacting 4-[5-(4-trifluoromethylbenzoylamino)pyridin-2-yloxy]benzoic acid with 1-benzylpiperazine afforded II. Compds. I were tested for anti-cancer effect on cancer cells (data given for representative compds. I).

IT 875698-26-3P

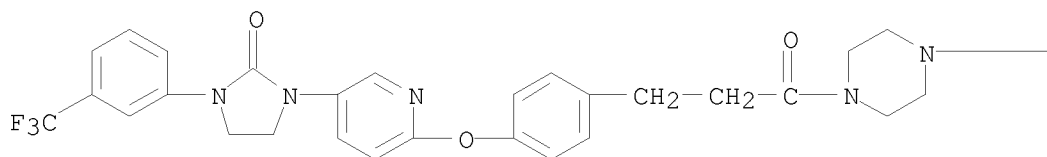
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(2-phenoxy pyridin-5-yl) benzamides for treating cancer)

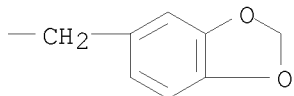
RN 875698-26-3 HCAPLUS

CN 2-Imidazolidinone, 1-[6-[4-[3-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]-3-oxopropyl]phenoxy]-3-pyridinyl]-3-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

PAGE 1-A



● HCl



L4 ANSWER 10 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:640706 HCAPLUS  
 DOCUMENT NUMBER: 147:72739  
 TITLE: Substituted thiazole derivatives as tyrosine kinase inhibitors, their preparation, pharmaceutical compositions, and use in therapy  
 INVENTOR(S): Ciufolini, Marco A.; Lermet, Anne; Pez, Didier; Moussy, Alain  
 PATENT ASSIGNEE(S): Ab Science, Fr.  
 SOURCE: PCT Int. Appl., 35pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007065939	A1	20070614	WO 2006-EP69459	20061208
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: WO 2006-EP69459 20061208

OTHER SOURCE(S): MARPAT 147:72739

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to thiazole derivs. of formula I, which selectively modulate, regulate, and/or inhibit signal transduction mediated by certain native and/or mutant tyrosine kinases, particularly, compds. I are potent and selective c-kit inhibitors. In compds. I, Y is O, S, NH, or N-CN; Z is a bond, O, S, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or N(R<sub>8</sub>), where R<sub>8</sub> is H, C1-4 alkyl, C2-6 alkenyl, C2-6 alkynyl, C3-7 cycloalkyl, C1-4 haloalkyl, C1-4 alkoxy, C1-4 hydroxyalkyl, or C1-4 alkylamino; R<sub>1</sub> is (un)substituted aryl or

(un)substituted heteroaryl; R2, R3, R4, and R5 are independently selected from H, halo, OH, cyano, nitro, CF3, formyl, (un)substituted C1-10 alkyl, R9-C(O)-, R9O-C(O)-, R9NH-C(O)-, R9-SO2-, and R9NH-SO2-, where R9 is (un)substituted C1-10 alkyl; and R6 and R7 are independently selected from H, halo, cyano, (un)substituted C1-10 alkyl, (un)substituted C3-10 cycloalkyl, (un)substituted Ph, (un)substituted heteroaryl, (un)substituted aryloxy, (un)substituted arylamino, (un)substituted heteroaryloxy, (un)substituted heteroaryl amino, etc. The invention also relates to the preparation of I, pharmaceutical compns. comprising a compound I and a pharmaceutically acceptable carrier suitable for oral or topical administration, as well as to the use of the compns. for the treatment of a variety of diseases such as cell proliferative, metabolic, allergic, and degenerative disorders. Heterocyclization of 4-methyl-3-nitroaniline with 2-chloroethyl isocyanate followed by N-arylation with 1-bromo-4-fluorobenzene and hydrogenation gave amine II, which was added to benzoyl isothiocyanate, hydrolyzed, and cyclized with 3-(bromoacetyl)pyridine to give thiazole III. The compds. of the invention are inhibitors of c-kit tyrosine kinases, e.g., compound III expressed IC50 value below 1  $\mu$ M towards c-kit WT.

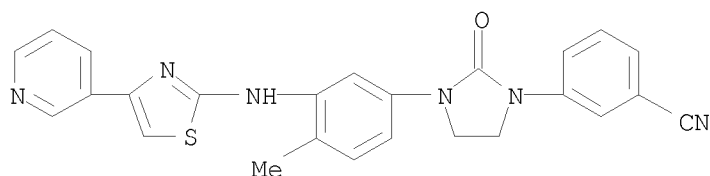
IT 941582-59-8P, 3-[3-[4-Methyl-3-((4-(pyridin-3-yl)thiazol-2-yl)amino)phenyl]-2-oxoimidazolidin-1-yl]benzonitrile

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of thiazole derivs. as tyrosine kinase inhibitors)

RN 941582-59-8 HCAPLUS

CN Benzonitrile, 3-[3-[4-methyl-3-[[4-(3-pyridinyl)-2-thiazolyl]amino]phenyl]-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:563479 HCAPLUS

DOCUMENT NUMBER: 147:2010

TITLE: Cytokine inhibitors for the treatment of autoimmune diseases, and use with other agents

INVENTOR(S): Delaet, Nancy; Larson, Christopher; Pryor, Kent; Hepburn, Bonnie; Allgren, Robin; King, Bernard D.

PATENT ASSIGNEE(S): Kemia, Inc., USA

SOURCE: PCT Int. Appl., 141pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

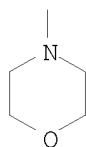
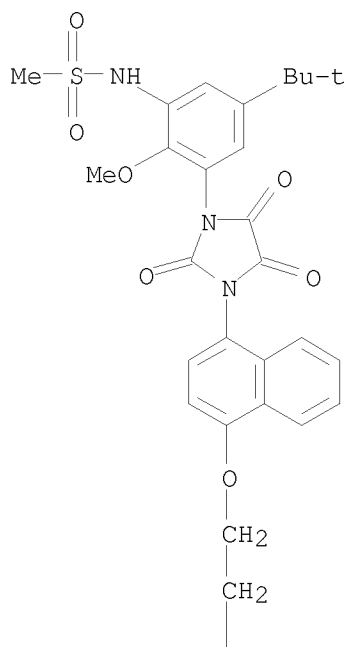
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10501317

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007058990	A2	20070524	WO 2006-US43896	20061113
WO 2007058990	A3	20071206		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
PRIORITY APPLN. INFO.:			US 2005-736621P	P 20051114
			US 2006-785943P	P 20060324
OTHER SOURCE(S): MARPAT 147:2010				
AB	The invention discloses methods for treating autoimmune diseases, which comprise the administration of a cytokine inhibitor alone or in combination with known therapeutics or treatments. The invention also discloses pharmaceutical compns. and dosing regimens. In particular, the invention discloses the use of cytokine inhibitors, optionally in conjunction with other therapies, for the treatment of autoimmune diseases, more particularly pemphigus.			
IT	848146-09-8 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (cytokine inhibitors for treatment of autoimmune diseases, and use with other agents)			
RN	848146-09-8 HCAPLUS			
CN	Methanesulfonamide, N-[5-(1,1-dimethylethyl)-2-methoxy-3-[3-[4-[2-(4-morpholinyl)ethoxy]-1-naphthalenyl]-2,4,5-trioxo-1-imidazolidinyl]phenyl]-(CA INDEX NAME)			





L4 ANSWER 12 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:173336 HCAPLUS

DOCUMENT NUMBER: 146:229337

TITLE: Preparation of urea derivatives as multi kinase inhibitors

INVENTOR(S): Ozawa, Sawako; Oikawa, Nobuhiro; Mizuguchi, Eisaku; Ebiike, Hirosato; Watanabe, Fumio; Morikami, Kenji; Shimma, Nobuo; Ishii, Nobuya; Tsukaguchi, Toshiyuki; Tamaki, Yasuhiro; Takahashi, Hidenori

PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan; The University of Tokyo

SOURCE: PCT Int. Appl., 151pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

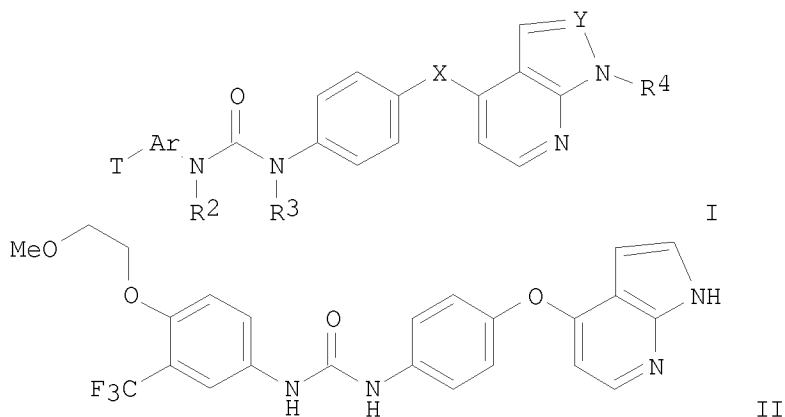
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

10501317

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007018137	A1	20070215	WO 2006-JP315465	20060804
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:			JP 2005-228726	A 20050805
			JP 2005-347532	A 20051201
OTHER SOURCE(S): MARPAT 146:229337				
GI				



AB The title compds. I [wherein Ar = (un)substituted Ph or naphthyl; T = alkyl, alkoxy, etc.; X = O, CH<sub>2</sub>, CO, etc.; Y = CH or N; R<sub>2</sub>-R<sub>4</sub> = independently H, (un)substituted alkyl, etc.], or pharmaceutically acceptable salts or prodrugs thereof are prepared as multi kinase inhibitors. For example, the compound II was prepared in a multi-step synthesis. Some of compds. I showed good inhibitory activities against human cancer cell growth.

IT 924909-07-9P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug candidate; preparation of urea derivs. as multi kinase inhibitors)

RN 924909-07-9 HCAPLUS

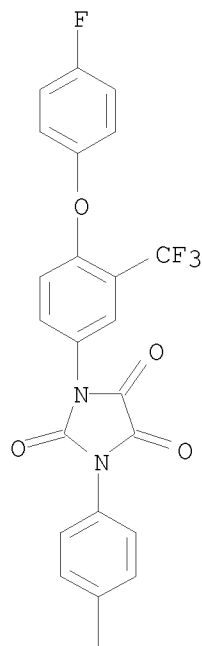
CN 2,4,5-Imidazolidinetrione, 1-[4-(4-fluorophenoxy)-3-(trifluoromethyl)phenyl]-3-[4-(1H-pyrazolo[3,4-b]pyridin-4-yloxy)phenyl]-

Updated Search

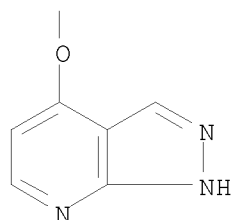
10501317

(CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:142093 HCAPLUS

DOCUMENT NUMBER: 148:100568

TITLE: Convenient selective synthesis of substituted pyrido[2,3-d]pyrimidones and annulated derivatives

AUTHOR(S): Hamama, Wafaa S.; Ismail, Mohamed A.; Al-Saman, Hana'a A.; Zoorob, Hanafi H.

CORPORATE SOURCE: Chem. Dep., Fac. Sci., Mansoura Univ., Mansoura, Egypt

SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (2007), 62(1), 104-110

Updated Search

10501317

CODEN: ZNBSEN; ISSN: 0932-0776

PUBLISHER: Verlag der Zeitschrift fuer Naturforschung

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The reaction of 6-aminouracil (I) with  $\alpha,\beta$ -unsatd. ketones gave pyrido[2,3-d]pyrimidin-2,4-diones. Treatment of I with salicylaldehyde, 6-carboethoxy-3,5-diphenyl-2-cyclohexenone or 2,6-bis(phenylmethylidene)cyclohexanone afforded the corresponding pyrimido[4,5-d]quinoline-2,4-diones. Furthermore, a pyrido[2,3-d]pyrimidine incorporating 3,2'-bis(quinoline) was synthesized. Annulation of pyrido[2,3-d]pyrimidine with pyrazole or imidazole moieties was achieved via reaction of I with benzylidene derivs. of pyrazolone, imidazolone or 3-carboethoxycoumarin.

IT 1000311-21-6

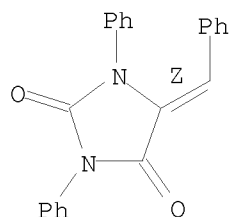
RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of substituted pyrido[2,3-d]pyrimidones and annulated derivs.)

RN 1000311-21-6 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)-, (5Z)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:117937 HCAPLUS

DOCUMENT NUMBER: 146:206302

TITLE: Preparation of hydantoin derivatives and their use as MCHR-1 antagonists

INVENTOR(S): Balavoine, Fabrice; Nicolaie, Eric; Sartori, Eric

PATENT ASSIGNEE(S): Cerep, Fr.

SOURCE: PCT Int. Appl., 92pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007012661	A1	20070201	WO 2006-EP64747	20060727
WO 2007012661	A8	20070329		

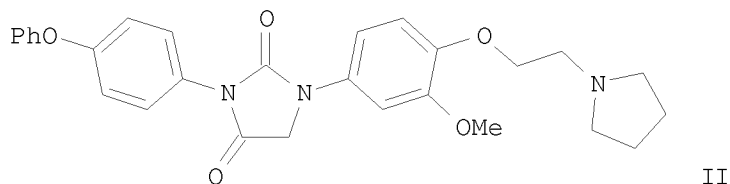
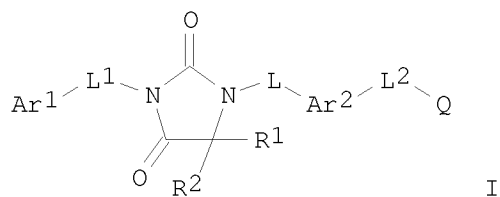
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,

Updated Search

10501317

KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,  
MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,  
SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,  
US, UZ, VC, VN, ZA, ZM, ZW  
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM

FR 2889189 A1 20070202 FR 2005-8064 20050728  
PRIORITY APPLN. INFO.: FR 2005-8064 A 20050728  
OTHER SOURCE(S): MARPAT 146:206302  
GI



AB Title compds. I [Ar1 = (un)substituted aryl, heteroaryl, cycloalkyl, heterocyclyl; L1 = bond, alkylene, alkyleneoxy, alkoxyalkylene, alkylidene, alkylidenoxy; R1, R2 = H, alkyl; R1 or R2 can form with Ar2 or L and with the C and N atoms of the hydantoin ring to which they are attached a 5-7 membered heterocycle; when R1 or R2 binds to Ar2 or L, then R1 or R2 = alkylene; L = bond, alkylene, alkyleneoxy, alkylidene; Ar2 = (un)substituted aryl, heteroaryl, heterocyclyl; L2 = alkylene, alkyleneoxy, alkylidene, etc.; Q = NH2 and derivs.] were prepared as melanin-concentrating hormone receptor type 1 (MCHR-1) antagonists for treating and prevention of diseases associated with MCHR receptors such as obesity, anorexia, weight loss, depression and/or anxiety. Thus, O-alkylation of 2-methoxy-4-nitrophenol potassium salt with 1-(2-chloroethyl)pyrrolidine.HCl, reduction of the nitro intermediate, reaction of the amine with Et glyoxylate, and cyclization with 4-phenoxyphenyl isocyanate gave II. I displayed a good affinity for the MCHR-1 receptors (IC50 < 200 nM for II). The antagonistic activity of hydantoin I was demonstrated in a fluorescence assay following the intracellular calcium release induced by MCH (no data).

IT 923030-45-9P, 1-[3-Methoxy-4-[2-(pyrrolidin-1-yl)ethoxy]phenyl]-3-(4-phenoxyphenyl)imidazolidine-2,4-dione  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

Updated Search

10501317

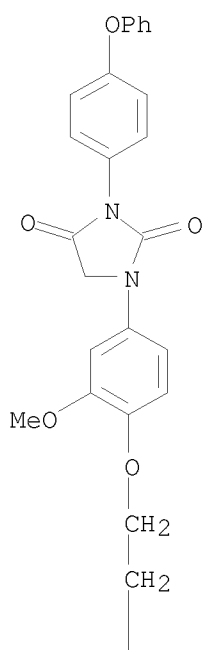
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of hydantoins as MCHR-1 antagonists)

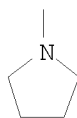
RN 923030-45-9 HCAPLUS

CN 2,4-Imidazolidinedione, 1-[3-methoxy-4-[2-(1-pyrrolidinyl)ethoxy]phenyl]-3-(4-phenoxyphenyl)- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1287276 HCAPLUS

DOCUMENT NUMBER: 147:385906

TITLE: Synthesis of some novel imidazolidine derivatives and their metal complexes with biological and antitumor activity

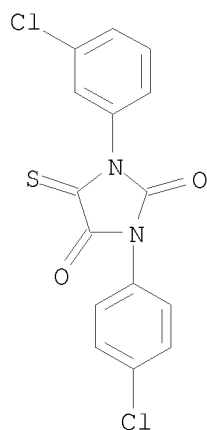
AUTHOR(S): Al-Raqa, Shaya Y.; ElSharief, Ahmed M. Sh.; Khalil, Saied M. E.; Al-Amri, Abdulkhaliq M.

CORPORATE SOURCE: Chemistry Department, Faculty of Science, Taibah

Updated Search

10501317

SOURCE: University, Madinah Munawwarah, Saudi Arabia  
Heteroatom Chemistry (2006), 17(7), 634-647  
CODEN: HETCE8; ISSN: 1042-7163  
PUBLISHER: John Wiley & Sons, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Halogenated imidazopyrazines, -[1,4]diazocines and -quinoxalines, 9,10-anthraquinone[6,7-e]-, phenanthroline[5,6-e]imidazo[4,5-b]pyrazines, and naphtho[1,8-ef]imidazo[4,5-b][1,4] diazepines were obtained through interaction of imidazolidineiminothiones with diamines. Imidazo[4,5-e]triazine and pyrrolo[2,3-d]imidazole were prepared when the iminothiones were reacted with thiocarbohydrazide and with Et phenylacetate. Some of the synthesized compds. exhibited antimicrobial and antitumor activities.  
IT 927814-51-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of some condensed imidazolidine derivs. and their metal complexes with biol. and antitumor activity)  
RN 927814-51-5 HCAPLUS  
CN 2,4-Imidazolidinedione, 1-(3-chlorophenyl)-3-(4-chlorophenyl)-5-thioxo- (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1228845 HCAPLUS

DOCUMENT NUMBER: 145:505452

TITLE: Preparation of diarylhydantoin compounds as androgen receptor antagonists useful against hormone refractory prostate cancer

INVENTOR(S): Sawyers, Charles L.; Jung, Michael E.; Chen, Charlie D.; Ouk, Samedy; Welsbie, Derek; Tran, Chris; Wongvipat, John; Yoo, Dongwon

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 166pp.

CODEN: PIXXD2

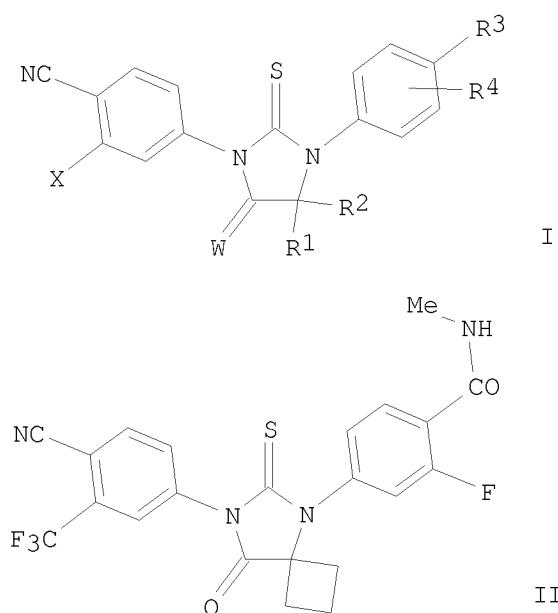
Updated Search

10501317

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006124118	A1	20061123	WO 2006-US11417	20060329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006248109	A1	20061123	AU 2006-248109	20060329
CA 2608436	A1	20061123	CA 2006-2608436	20060329
EP 1893196	A1	20080305	EP 2006-748863	20060329
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
US 2007004753	A1	20070104	US 2006-433829	20060515
KR 2008014039	A	20080213	KR 2007-729188	20071213
PRIORITY APPLN. INFO.:			US 2005-680835P	P 20050513
			US 2005-750351P	P 20051215
			US 2006-756552P	P 20060106
			US 2006-785978P	P 20060327
			WO 2006-US11417	W 20060329
OTHER SOURCE(S):	MARPAT 145:505452			
GI				





- AB The present invention relates to diarylthiohydantoin compds., including diarylthiohydantoins (shown as I; variables defined below; e.g. N-methyl-4-[7-(4-cyano-3-trifluoromethylphenyl)-8-oxo-6-thioxo-5,7-diazaspiro[3.4]octan-5-yl]-2-fluorobenzamide (shown as II)), and methods for synthesizing them and using them in the treatment of hormone refractory prostate cancer. For I: X = trifluoromethyl and iodo; W = O and NR<sub>5</sub>; R<sub>5</sub> = H, Me, and -C(:D)-E-G, (D is S or O and E is N or O and G is (un)substituted alkyl or aryl, or D is S or O and E-G together are C1-C4 lower alkyl); R<sub>1</sub> and R<sub>2</sub> together comprise eight or fewer C atoms and = (un)substituted alkyl including haloalkyl, and, together with the C to which they are linked, (un)substituted cycloalkyl; R<sub>3</sub> = H, halogen, Me, C1-C4 alkoxy, formyl, haloacetoxy, trifluoromethyl, cyano, nitro, hydroxy, Ph, amino, methylcarbamoyl, methoxycarbonyl, acetamido, methanesulfonamino, methanesulfonyl, 4-methanesulfonyl-1-piperazinyl, piperazinyl, and C1-C6 alkyl or alkenyl (un)substituted with hydroxy, methoxycarbonyl, cyano, amino, amido, nitro, (un)substituted carbamoyl including methylcarbamoyl, dimethylcarbamoyl, and hydroxyethylcarbamoyl; R<sub>3</sub> is not methylaminomethyl or dimethylaminomethyl; and R<sub>4</sub> = H, halogen, alkyl, and haloalkyl. Methods of preparation are claimed and preps. and/or characterization data for .apprx.60 examples of I are included. For example, II was prepared in 4 steps (91, 94, 89, 57 % yields, resp.) involving intermediates N-methyl-2-fluoro-4-nitrobenzamide, N-methyl-2-fluoro-4-aminobenzamide, and N-methyl-4-(1-cyanocyclobutylamino)-2-fluorobenzamide; the last step comprises cyclization of 4-isothiocyanato-2-trifluoromethylbenzonitrile (preparation given) with N-methyl-4-(1-cyanocyclobutylamino)-2-fluorobenzamide in DMF under microwave irradiation at 80° for 16 h followed by refluxing for 3 h after addition of MeOH and 2 N HCl.
- IT 915086-59-8P, 4-[3-(4-Hydroxyphenyl)-4,4-dimethyl-2,5-dioxoimidazolidin-1-yl]-2-trifluoromethylbenzonitrile
- RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

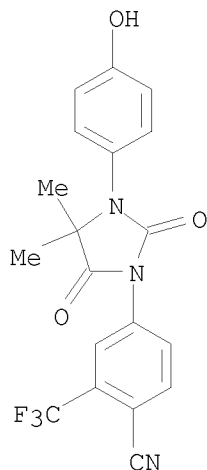
10501317

(Uses)

(drug candidate; preparation of diarylhydantoin compds. as androgen receptor antagonists useful against hormone refractory prostate cancer)

RN 915086-59-8 HCAPLUS

CN Benzonitrile, 4-[3-(4-hydroxyphenyl)-4,4-dimethyl-2,5-dioxo-1-imidazolidinyl]-2-(trifluoromethyl)- (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1066211 HCAPLUS

DOCUMENT NUMBER: 145:419126

TITLE: Substituted oxazole derivatives as tyrosine kinase inhibitors and their preparation and pharmaceutical composition

INVENTOR(S): Grierson, David; Benjahad, Abdellah; Moussy, Alain

PATENT ASSIGNEE(S): Ab Science, Fr.; Centre National de la Recherche Scientifique (CNRS); Institut Curie

SOURCE: PCT Int. Appl., 54pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006106437	A2	20061012	WO 2006-IB1249	20060404
WO 2006106437	A3	20061123		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,			

Updated Search

10501317

VN, YU, ZA, ZM, ZW  
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM  
AU 2006231929 A1 20061012 AU 2006-231929 20060404  
CA 2603826 A1 20061012 CA 2006-2603826 20060404  
EP 1874305 A2 20080109 EP 2006-755876 20060404  
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR  
MX 200712392 A 20071205 MX 2007-12392 20071004  
IN 2007DN07848 A 20071109 IN 2007-DN7848 20071011  
KR 2008019578 A 20080304 KR 2007-725402 20071101  
PRIORITY APPLN. INFO.: US 2005-667771P P 20050404  
WO 2006-IB1249 W 20060404  
OTHER SOURCE(S): MARPAT 145:419126  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

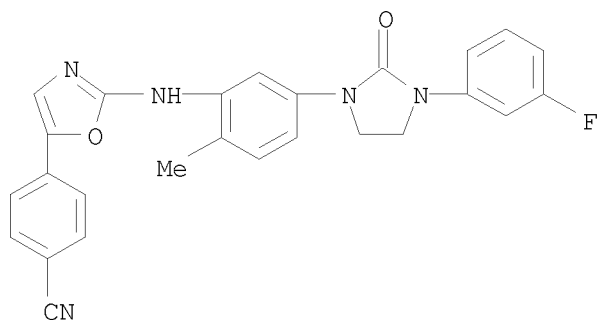
AB The invention relates to compds. of formula I that selectively modulate, regulate, and/or inhibit signal transduction mediated by certain native and/or mutant tyrosine kinases implicated in a variety of human and animal diseases such as cell proliferative, metabolic, allergic, and degenerative disorders. More particularly, these compds. are potent and selective c-kit, bcr-abl and Flt-3 inhibitors. Compds. of formula I wherein A and B' are independently NH and derivs., NHCH<sub>2</sub> and derivs., O, OCH<sub>2</sub>, S, SCH<sub>2</sub>, CO, COCH<sub>2</sub>, etc.; B is NH and derivs., O, S, SO, SO<sub>2</sub>, (un)substituted methylene, etc.; R<sub>1</sub> is H, halo, (un)substituted (un)branched alkyl, (un)substituted cycloalkyl, (un)substituted (hetero)aryl, etc.; R<sub>2</sub>-R<sub>5</sub> are independently H, halo, (un)substituted (un)branched alkyl, etc.; Q is alkyl, and (hetero)aryl; are claimed. Example compound II was prepared by azidation of 4-bromoacetylbenzonitrile; the resulting 4-azidoacetylbenzonitrile underwent cyclization with 2-methyl-5-nitrophenyl isocyanate to give 4-[2-(2-methyl-5-nitrophenylamino)oxazol-5-yl]benzonitrile, which underwent reduction to give 4-[2-(5-amino-2-methylphenylamino)oxazol-5-yl]benzonitrile, which underwent alkylation with 4-fluorophenacyl bromide to give compound II. All the invention compds. were evaluated for their tyrosine kinase inhibitory activity. From the assay, it was determined that compound II exhibited an IC<sub>50</sub> value ≤ 1 μM against c-kit JM A27.

IT 911819-73-3P  
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(drug candidate and intermediate; preparation of substituted oxazole derivs. as tyrosine kinase inhibitors useful in treatment of diseases)

RN 911819-73-3 HCAPLUS  
CN Benzonitrile, 4-[2-[[5-[3-(3-fluorophenyl)-2-oxo-1-imidazolidinyl]-2-methylphenyl]amino]-5-oxazolyl]- (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 18 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:916601 HCAPLUS

DOCUMENT NUMBER: 145:315017

TITLE: Preparation of acridine and quinoline sirtuin modulators

INVENTOR(S): Milburn, Michael; Milne, Jill; Bemis, Jean; Nunes, Joseph J.; Xie, Roger; Normington, Karl D.

PATENT ASSIGNEE(S): Sirtris Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 254 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

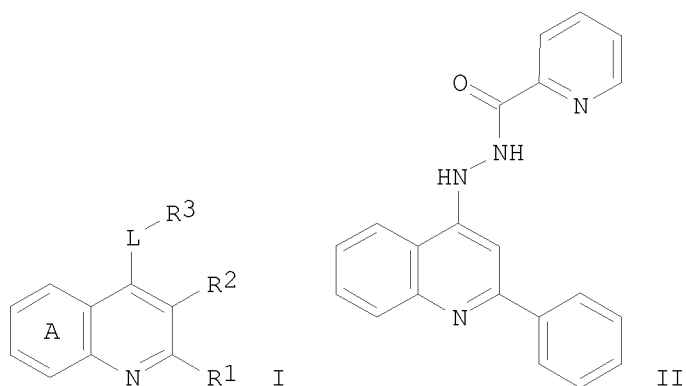
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006094237	A2	20060908	WO 2006-US7746	20060303
WO 2006094237	A3	20061026		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
AU 2006218405	A1	20060908	AU 2006-218405	20060303
CA 2599992	A1	20060908	CA 2006-2599992	20060303
EP 1856099	A2	20071121	EP 2006-736982	20060303
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
PRIORITY APPLN. INFO.:			US 2005-658711P	P 20050303
			US 2005-705609P	P 20050804
			WO 2006-US7746	W 20060303
OTHER SOURCE(S):	MARPAT 145:315017			
GI				

Updated Search



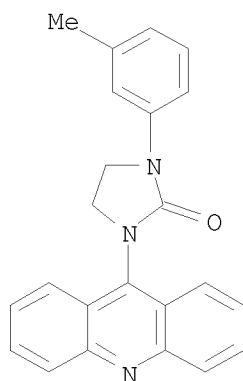
AB Title compds. I [Ring A is optionally substituted; R<sup>1</sup> and R<sup>2</sup> independently = H, (un)substituted alkyl, aryl, etc.; L = CH=CHCO, COCH<sub>2</sub>, CH<sub>2</sub>N(R<sup>4</sup>)CO, etc.; R<sup>3</sup> and R<sup>4</sup> independently = H, (un)substituted alkyl, aryl, etc.], and their pharmaceutically acceptable salts, are prepared and disclosed as novel sirtuin-modulating compds. Thus, e.g., II was prepared by substitution of 4-chloro-2-phenylquinoline with 2-picolinyl hydrazide. In assays to determine sirtuin modulation capacity, selected compds. of the invention possessed ED<sub>50</sub> values ≤ 50 μM. The sirtuin-modulating compds. may be used for increasing the lifespan of a cell, and treating and/or preventing a wide variety of diseases and disorders including, for example, diseases or disorders related to aging or stress, diabetes, obesity, neurodegenerative diseases, chemo therapeutic induced neuropathy, neuropathy associated with an ischemic event, polyglutamine diseases, ocular diseases and/or disorders, cardiovascular disease, blood clotting disorders, inflammation, cancer, and/or flushing. Also provided are compns. comprising a sirtuin-modulating compound in combination with another therapeutic agent.

IT 908562-96-9P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of acridine and quinoline sirtuin modulators)

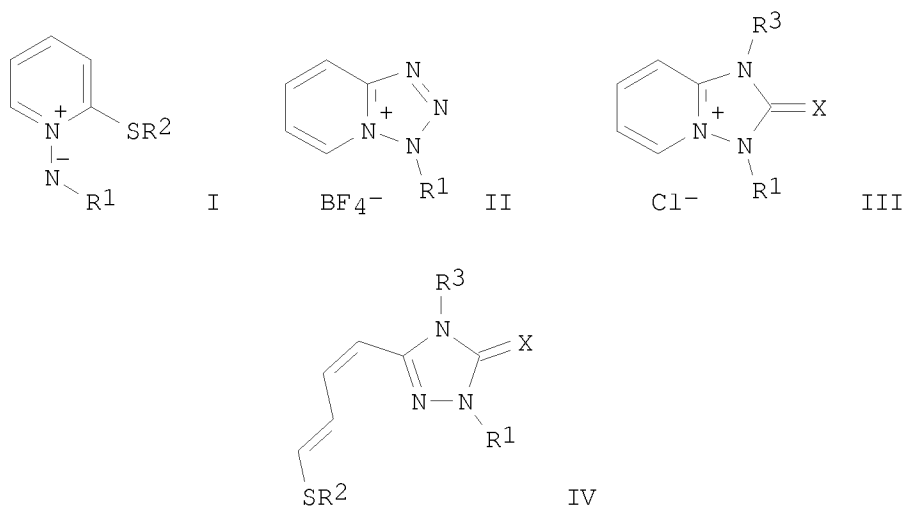
RN 908562-96-9 HCAPLUS

CN 2-Imidazolidinone, 1-(9-acridinyl)-3-(3-methylphenyl)- (CA INDEX NAME)

10501317



L4 ANSWER 19 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:908619 HCAPLUS  
DOCUMENT NUMBER: 145:454971  
TITLE: New Facile Tandem Route to Oxo- and  
Thioxo[1,2,4]triazolo[1,5-a]pyridinium Salts  
AUTHOR(S): Palko, Roberta; Riedl, Zsuzsanna; Egyed, Orsolya;  
Fabian, Laszlo; Hajos, Gyoergy  
CORPORATE SOURCE: Chemical Research Center, Hungarian Academy of  
Sciences, Budapest, H-1025, Hung.  
SOURCE: Journal of Organic Chemistry (2006), 71(20), 7805-7812  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB 2-Arylsulfanyl- and benzylsulfanylpuridinium N-arylimides I (R<sub>1</sub> =  
4-ClC<sub>6</sub>H<sub>4</sub>, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>; R<sub>2</sub> = 4-MeC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>, PhCH<sub>2</sub>), easily

Updated Search

available from tetrazolo[1,5-b]pyridinium salts II, participate in 1,3-dipolar cycloaddn. with aryl or benzyl isothiocyanates R<sub>3</sub>NCS (R<sub>3</sub> = Ph, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, PhCH<sub>2</sub>) or aryl isocyanates R<sub>3</sub>NCO (R<sub>3</sub> = Ph, 4-MeOC<sub>6</sub>H<sub>4</sub>) to result in formation of fused thioxo- and oxo[1,2,4]triazolium salts III (X = O, S). This transformation is interpreted as a regular 1,3-cycloaddn. followed by spontaneous elimination of the aryl- or benzylsulfanyl group. Formation of these triazolium salts can be followed (under appropriate reaction conditions) by ring-opening reactions to afford some new triazolyldienes IV. Recognition of the intermediate participation of the thiolate anion along the pathway II → III allowed elaboration of a simple procedure to III implying a tandem reaction sequence.

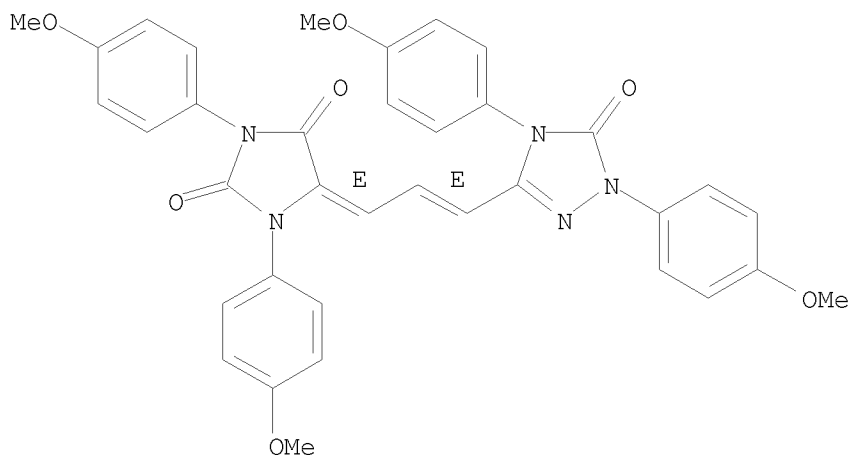
IT 913545-84-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; preparation of oxo- and thioxo[1,2,4]triazolo[1,5-a]pyridinium salts and triazolyl dienes via 1,3-dipolar cycloaddn. of [aryl(or benzyl)thio]pyridinium arylimides with isocyanates or isothiocyanates)

RN 913545-84-3 HCAPLUS

CN 2,4-Imidazolidinedione, 5-[(2E)-3-[4,5-dihydro-1,4-bis(4-methoxyphenyl)-5-oxo-1H-1,2,4-triazol-3-yl]-2-propenylidene]-1,3-bis(4-methoxyphenyl)-, (5E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:740674 HCAPLUS

DOCUMENT NUMBER: 145:167252

TITLE: Preparation of ureido substituted benzoic acids, particularly (imidazolidin-1-yl)benzoic acids, as promoters of nonsense mutation suppression in messenger RNA (mRNA) and/or as modulators of translation termination for treatment of related diseases

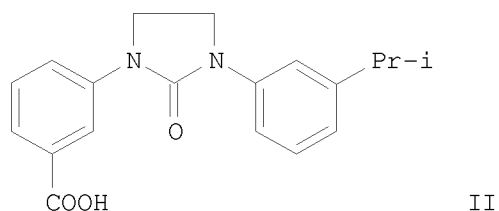
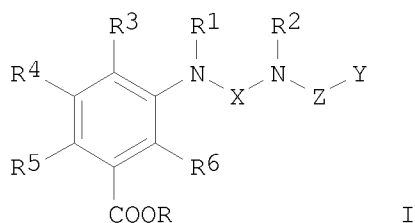
INVENTOR(S): Wilde, Richard G.; Takasugi, James J.; Hwang, Seongwoo; Welch, Ellen M.; Chen, Guangming

10501317

PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 70 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006167065	A1	20060727	US 2005-48656	20050121
PRIORITY APPLN. INFO.:			US 2005-48656	20050121
OTHER SOURCE(S):	MARPAT	145:167252		

GI



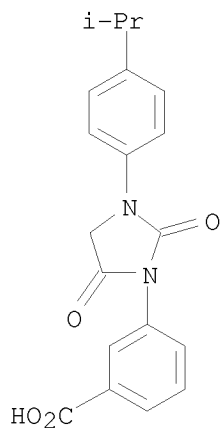
AB Title compds. I [X = CO, C(:S), S, SO, SO<sub>2</sub>; Y = (un)substituted cyclo/alkyl, hetero/aryl, heterocyclyl; R = H, (un)substituted cyclo/alkyl, hetero/aryl, etc.; Z = (CH<sub>2</sub>)<sub>n</sub>; n = 0-4; R<sub>1</sub>, R<sub>2</sub> = independently H, (un)substituted alk(en/yn)yl, alkylcarbonyl, etc.; or R<sub>1</sub>NCNR<sub>2</sub>, R<sub>1</sub>NSNR<sub>2</sub> = (un)substituted 5-7 membered heterocyclyl, 5-7 membered heteroaryl; or R<sub>1</sub>-R<sub>2</sub> = COCH<sub>2</sub>, CH<sub>2</sub>CO, CH<sub>2</sub>CH<sub>2</sub>, CH:CH, etc.; R<sub>3</sub>-R<sub>6</sub> = independently H, OH, CN, halo, (un)substituted alk(en/yn)yl, aryl, alkoxy, etc.; and their pharmaceutically acceptable salts, hydrates, solvates, clathrates, and stereoisomers] were prepared as promoters of nonsense mutation suppression in mRNA (mRNA) and/or as modulators of translation termination. Thus, II was prepared, in 5 steps, by amination of bromoacetyl bromide with Me 3-aminobenzoate, acylation of 4-isopropylaniline with the acyl bromide, reduction of the amide, cyclization in 1,2-dichloroethane in the presence of CDI, and saponification. Selected I showed both very high potency and efficacy of protein synthesis in a cell-based luciferase assay (no data). Thus, I are useful for treating or preventing a disease ameliorated by modulation of premature translation termination or nonsense-mediated mRNA

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decay, or ameliorating one or more symptoms associated therewith.  
IT 651748-42-4P, 3-[3-(4-Isopropylphenyl)-2,5-dioxoimidazolidin-1-yl]benzoic acid  
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(drug candidate; preparation of ureido substituted benzoic acids as promoters of nonsense mutation suppression in mRNA and/or as modulators of translation termination)  
RN 651748-42-4 HCAPLUS  
CN Benzoic acid, 3-[3-[4-(1-methylethyl)phenyl]-2,5-dioxo-1-imidazolidinyl]-(CA INDEX NAME)



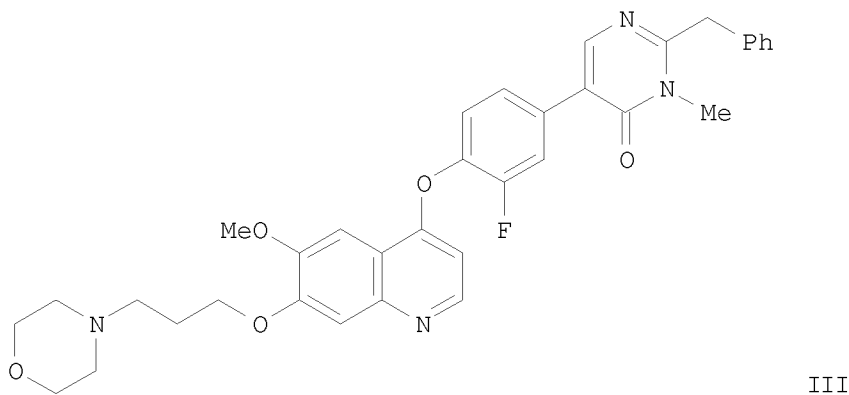
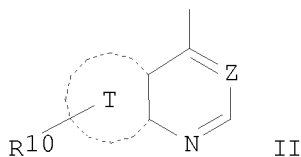
L4 ANSWER 21 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:542661 HCAPLUS  
DOCUMENT NUMBER: 145:46082  
TITLE: Preparation of substituted heterocycles for treating HGF mediated diseases  
INVENTOR(S): Kim, Tae-Seong; Bellon, Steven; Booker, Shon; D'Angelo, Noel; Dominguez, Celia; Fellows, Ingrid; Lee, Matthew; Liu, Longbin; Rainbeau, Elizabeth; Siegmund, Aaron C.; Tasker, Andrew; Xi, Ning; Cheng, Yuan  
PATENT ASSIGNEE(S): Amgen Inc., USA  
SOURCE: PCT Int. Appl., 228 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006060318	A2	20060608	WO 2005-US42935	20051129
WO 2006060318	A3	20060720		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

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10501317

	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
	KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
	MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
	SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
	VN, YU, ZA, ZM, ZW
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
	IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
	CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
	GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
	KG, KZ, MD, RU, TJ, TM
AU 2005312048	A1 20060608 AU 2005-312048 20051129
CA 2587642	A1 20060608 CA 2005-2587642 20051129
US 2006252777	A1 20061109 US 2005-289659 20051129
EP 1827434	A2 20070905 EP 2005-848812 20051129
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
	IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
	BA, HR, MK, YU
MX 200706230	A 20070725 MX 2007-6230 20070524
PRIORITY APPLN. INFO.:	US 2004-632271P P 20041130
	WO 2005-US42935 W 20051129
OTHER SOURCE(S):	MARPAT 145:46082
GI	



AB The title compds. R1XWAYR [I; R = (un)substituted aryl, heterocyclcyl, cycloalkyl, etc.; R1 = II (wherein ring T = Ph, 5-6 membered heteroaryl; Z = N or CH; R10 = alkoxy, haloalkoxy, arylalkoxy, etc.); W = (un)substituted aryl, 5-6 membered heteroaryl; A = (un)substituted 5-7 membered N-containing heterocyclcyl; X = O, S, NR2, CR3R4; Y = a bond, CO, CONH, etc.; R2 = H, alkyl, haloalkyl, etc.; R3, R4 = H, alkyl, aryl, etc.]

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which are effective for prophylaxis and treatment of diseases, such as HGF mediated diseases, were prepared E.g., a multi-step synthesis of III, starting from 2-benzyl-3H-pyrimidin-4-one, was given. Compds. I showed inhibition of c-Met kinase at doses less than 2  $\mu$ M. The invention encompasses novel compds. I, analogs, prodrugs and pharmaceutically acceptable salts thereof, pharmaceutical compns. and methods for prophylaxis and treatment of diseases and other maladies or conditions involving, cancer and the like. The subject invention also relates to processes for making such compds. as well as to intermediates useful in such processes.

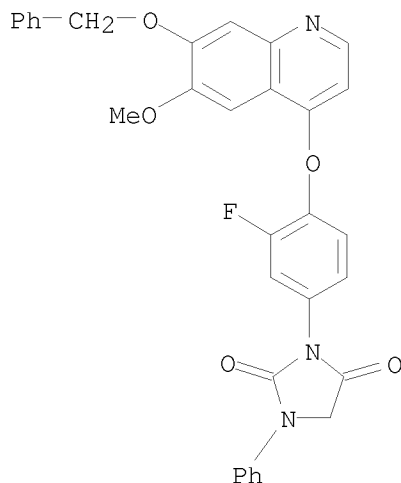
IT 890020-63-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted heterocycles for treating HGF mediated diseases)

RN 890020-63-0 HCAPLUS

CN 2,4-Imidazolidinedione, 3-[3-fluoro-4-[[6-methoxy-7-(phenylmethoxy)-4-quinolinyl]oxy]phenyl]-1-phenyl- (CA INDEX NAME)



L4 ANSWER 22 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:529646 HCAPLUS

DOCUMENT NUMBER: 145:189219

TITLE: N-Heterocyclic carbenes: Effective organic catalysts for living polymerization

AUTHOR(S): Dove, Andrew P.; Pratt, Russell C.; Lohmeijer, Bas G. G.; Culkin, Darcy A.; Hagberg, Eric C.; Nyce, Gregory W.; Waymouth, Robert M.; Hedrick, James L.

CORPORATE SOURCE: IBM Almaden Research Center, San Jose, CA, 95120, USA

SOURCE: Polymer (2006), 47(11), 4018-4025

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An organocatalytic approach to living and condensation polymerization using N-heterocyclic carbenes as nucleophilic catalysts is detailed. The

Updated Search

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N-heterocyclic carbene catalyst platform is extremely versatile with the nature of the substituents having a pronounced effect upon catalyst stability and activity towards different substrates. Rapid screening of libraries of catalysts provided a basic understanding of catalyst structure (sterics, electronics, etc.) as it influences the polymerization rate, control, substrate and range of mol. wts. ROP from an immiscible ionic liquid (precatalyst reservoir) and a THF solution of monomer and initiator is presented as a simplified method of carbene formation. In situ activation of the ionic liquid generated a nucleophilic N-heterocyclic carbene, which migrates to the organic phase effecting ROP. Other simplified methods of generating carbene thermally from carbene adducts are also presented as polymerization catalysts.

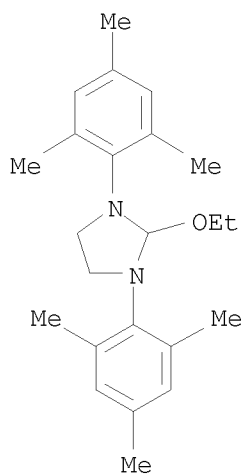
IT 465543-02-6

RL: CAT (Catalyst use); USES (Uses)

(precursor; heterocyclic carbenes as catalysts for ring-opening living polymerization)

RN 465543-02-6 HCAPLUS

CN Imidazolidine, 2-ethoxy-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 126 THERE ARE 126 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 23 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:455346 HCAPLUS

DOCUMENT NUMBER: 145:145618

TITLE: A new synthesis of imidazolidin-2-ones via Pd-catalyzed carboamination of N-allylureas

AUTHOR(S): Fritz, Jonathan A.; Nakhla, Josephine S.; Wolfe, John P.

CORPORATE SOURCE: Department of Chemistry, University of Michigan, Ann Arbor, MI, 48109-1055, USA

SOURCE: Organic Letters (2006), 8(12), 2531-2534

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

Updated Search

10501317

DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 145:145618

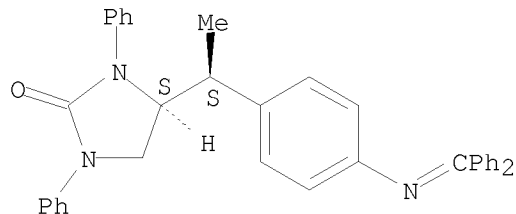
AB A new strategy for the preparation of substituted imidazolidin-2-ones in two steps from readily available N-allyl amines was described. Addition of the amine starting materials to isocyanates affords N-allylureas, which are converted to imidazolidin-2-one products with generation of two bonds and up to two stereocenters when treated with aryl bromides and catalytic

IT 898539-50-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of imidazolidin-2-ones via Pd-catalyzed carboamination of N-allylureas)

RN 898539-50-9 HCAPLUS

CN 2-Imidazolidinone, 4-[(1R)-1-[4-[(diphenylmethylene)amino]phenyl]ethyl]-1,3-diphenyl-, (4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:439887 HCAPLUS

DOCUMENT NUMBER: 144:468206

TITLE: Preparation of piperazinyphenyl and piperazinyipyridinyl lactams and analogs as ligands for 5HT1B receptors

INVENTOR(S): Butler, Todd William

PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006048727	A1	20060511	WO 2005-IB3252	20051021
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,				

Updated Search

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YU, ZA, ZM, ZW  
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

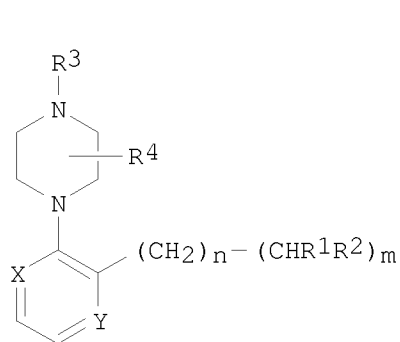
US 2004-624291P

P 20041102

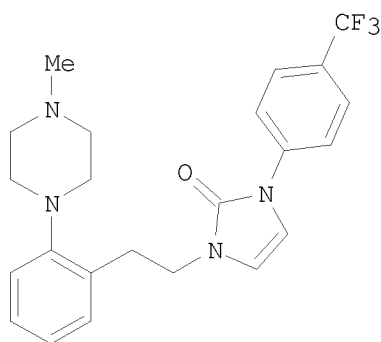
OTHER SOURCE(S):

MARPAT 144:468206

GI



I



II

AB Title compds. I [wherein R<sub>1</sub> = (un)substituted 1,3-dihydro-2-oxoimidazolyl, 1,2,3,4-tetrahydroisoquinolinyl, etc.; R<sub>2</sub> - R<sub>4</sub> = H, alkyl, alkylphenyl, etc.; X, Y = CH or N; m, n = 0 or 1, with limitations] and their pharmaceutically acceptable salts were prepared as ligands of serotonin receptors 1 (5HT<sub>1</sub>), especially as 5HT<sub>1B</sub> receptor inhibitors. For instance, II was synthesized in 66% yield by Cu-mediated coupling of imidazolone (preparation given) with 4-bromobenzotrifluoride in the presence of , CuI, K<sub>2</sub>CO<sub>3</sub> and N,N'-dimethylethylenediamine in toluene at 110-120°C for 24 h. Tested compds. I had inhibition against 5HT<sub>1B</sub> receptor with IC<sub>50</sub> values of < 500 nM. Therefore, I and pharmaceutical compns. thereof are useful for treating or preventing depression, anxiety, obsessive compulsive disorder (OCD), and other disorders for which selective antagonists, inverse agonists and partial agonists of 5HT<sub>1</sub> receptors, specifically, antagonists of 5-HT<sub>1B</sub> receptors are useful.

IT 886592-21-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

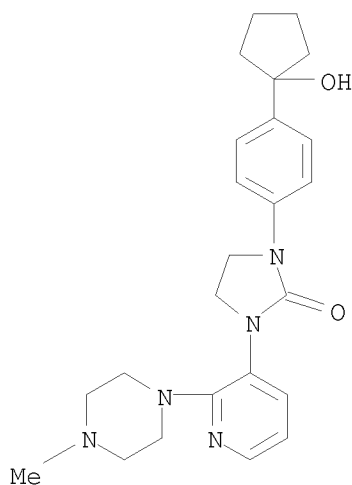
(drug candidate; preparation of piperazinyphenyl and piperaziny pyridinyl lactams and analogs as 5HT<sub>1B</sub> receptor inhibitors)

RN 886592-21-8 HCAPLUS

CN 2-Imidazolidinone, 1-[4-(1-hydroxycyclopentyl)phenyl]-3-[2-(4-methyl-1-piperazinyl)-3-pyridinyl]- (CA INDEX NAME)

Updated Search

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REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:343955 HCAPLUS

DOCUMENT NUMBER: 144:390936

TITLE: Aryl nitrogen-containing bicyclic compounds and their preparation, pharmaceutical compositions, and protein kinase inhibitory activity and use in prophylaxis and treatment of kinase-mediated diseases

INVENTOR(S): Patel, Vinod F.; Kim, Joseph L.; Geuns-Meyer, Stephanie D.; Chaffee, Stuart C.; Cee, Victor J.; Hodous, Brian L.; Bellon, Steven; Harmange, Jean-Christophe; Olivieri, Philip R.; Thaman, Maya C.; Dimauro, Erin F.; Buchanan, John L.; McGowan, David C.; Albrecht, Brian K.; Deak, Holly L.; Bemis, Jean E.; White, Ryan; Martin, Matthew W.; Habgood, Gregory J.; Tempest, Paul A.; Masse, Craig E.; Buckner, William H.; Herberich, Bradley J.; Graceffa, Russell; Zhang, Dawei; Xu, Shimin; Sham, Kelvin; Rzasa, Robert M.; Falsey, James Richard; Chakrabarti, Partha P.; Cao, Guo-Qiang; Tomlinson, Susan Ann; Pettus, Liping H.; Smith, Adrian Leonard; Paras, Nick A.; Liu, Gang; Demorin, Frenel F.; Tasker, Andrew; Reed, Anthony

PATENT ASSIGNEE(S): Amgen Inc., USA

SOURCE: PCT Int. Appl., 876 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

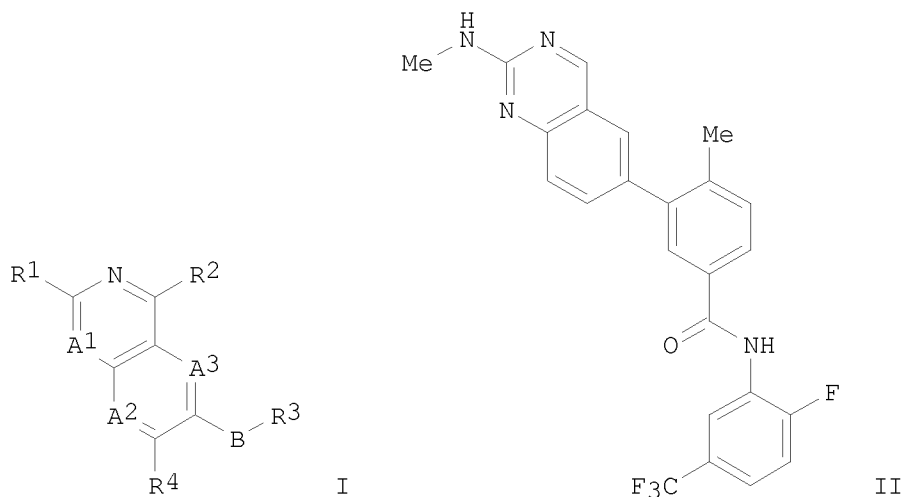
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006039718	A2	20060413	WO 2005-US35873	20051003
WO 2006039718	A3	20060713		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

Updated Search

	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
	LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
	NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG.
	SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
	YU, ZA, ZM, ZW
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
	IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
	CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
	GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
	KG, KZ, MD, RU, TJ, TM
US	2007054916 A1 20070308 US 2005-240590 20050930
AU	2005292152 A1 20060413 AU 2005-292152 20051003
CA	2582029 A1 20060413 CA 2005-2582029 20051003
EP	1836174 A2 20070926 EP 2005-818381 20051003
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
	IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
	BA, HR, MK, YU
MX	200703784 A 20070424 MX 2007-3784 20070329
PRIORITY APPLN. INFO.:	US 2004-615535P P 20041001
	US 2005-240590 A 20050930
	WO 2005-US35873 W 20051003
OTHER SOURCE(S):	CASREACT 144:390936; MARPAT 144:390936
GI	



AB The invention comprises a class of compds. of formula I useful for the prophylaxis and treatment of protein kinase mediated diseases, including inflammation, cancer and related conditions. Compds. of formula I wherein A1 and one of A2 and A3 are independently CR5 or N; B is a bond, CR5R6, CO, NR6, O, S, SO, or SO2; R1 is halo, haloalkyl, NO2, CN, H, NH2 and derivs., OH and derivs., SH and derivs., CHO and derivs., OC(O)R and derivs., CO2H and derivs., CONH2 and derivs., CSNH2 and derivs., NHCHO and derivs., NHC(S)H and derivs., NHCONH2 and derivs., NHCNH2 and derivs.,

Updated Search



SO<sub>2</sub>H and derivs., SO<sub>2</sub>NH<sub>2</sub> and derivs., etc.; R<sub>2</sub>, R<sub>4</sub>, and R<sub>5</sub> are independently H, halo, haloalkyl, NO<sub>2</sub>, CN, OH and derivs., SH and derivs., NH<sub>2</sub> and derivs., CHO and derivs., CO<sub>2</sub>H and derivs., CONH<sub>2</sub> and derivs., NHCONH<sub>2</sub> and derivs., SO<sub>2</sub>H and derivs., SO<sub>2</sub>NH<sub>2</sub> and derivs., NHSO<sub>2</sub>H and derivs., (un)substituted C<sub>1</sub>-10 (hetero)alkyl, (un)substituted C<sub>2</sub>-10 alkenyl, (un)substituted C<sub>2</sub>-10 (hetero)alkynyl, (un)substituted 3- to 10-membered (hetero)cycloalkyl, (un)substituted 4- to 10-membered (hetero)cycloalkenyl, etc.; R<sub>3</sub> is (un)substituted (un)saturated 5- to 8-membered (hetero)monocyclic, (un)substituted (un)saturated 6- to 12-membered (hetero)bicyclic, or (un)substituted (un)saturated 7- to 14-membered (hetero)tricyclic rings; R<sub>6</sub> is H, (un)substituted C<sub>1</sub>-10 (hetero)alkyl, (un)substituted C<sub>2</sub>-10 (hetero)alkenyl, (un)substituted C<sub>2</sub>-10 (hetero)alkynyl, (un)substituted 3- to 10-membered (hetero)cycloalkyl, (un)substituted 4- to 10-membered (hetero)cycloalkenyl; and their stereoisomers, tautomers, solvates, pharmaceutically acceptable salts, derivs., and prodrugs thereof are claimed. Accordingly, the invention also comprises pharmaceutical compns. comprising the compds. of the invention, methods for the prophylaxis and treatment of kinase mediated diseases using the compds. and compns. of the invention, and intermediates and processes useful for the preparation of compds. of the invention. Example compound II was prepared by boration of 3-iodo-4-methylbenzoic acid with bis(pinacolato)diboron; the resulting 4-methyl-3-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)benzoic acid was converted to the corresponding acid chloride, in situ, and reacted with 2-fluoro-5-trifluoromethylbenzeneamine to give N-(2-fluoro-5-fluoromethylphenyl)-4-methyl-3-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)benzamide, which underwent cross-coupling with 6-bromo-N-methylquinazolin-2-amine to give compound II. About 2000 invention compds. of formula I were prepared by similar procedures. All the invention compds. were tested for their protein kinase inhibitory activity. Example compound I along with many other invention compound showed good inhibitory activity. From the HTRF assay, the IC<sub>50</sub> values for inhibition of Tie-2 was determined to be less than or equal to 1 μM for some of the invention compds. For the inhibition of Lck kinase enzyme, the some of the exemplary compds. exhibited an average IC<sub>50</sub> value of 25 μM or less and some invention compound exhibited an IC<sub>50</sub> value of 1 μM or less, in the human HTRF assay. The invention compds. were also found to be active inhibitors or the VEGF kinase receptor. Furthermore, some of the invention compds. exhibited activities in the monocyte assay with IC<sub>50</sub> values of 25 μM or less. Various compds. of the invention have selective inhibitory activity for specific kinase receptor enzymes, including Tie-2, Lck, p38 and VEGFR/KDR. Accordingly, the compds. of the invention would be useful in therapy as antineoplasia agents, antiinflammatory agents, or to minimize deleterious effects of Tie-2, Lck, VEGF and/or p38.

IT 882665-37-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of aryl nitrogen-containing bicyclic compds.

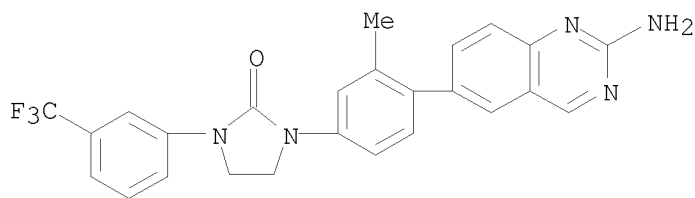
and

their protein kinase inhibitory activity and use in prophylaxis and treatment of kinase-mediated diseases)

RN 882665-37-4 HCAPLUS

CN 2-Imidazolidinone, 1-[4-(2-amino-6-quinazolinyl)-3-methylphenyl]-3-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

10501317



L4 ANSWER 26 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:305640 HCAPLUS

DOCUMENT NUMBER: 146:295882

TITLE: Halogenated, alkylated and new types of imidazolidine, pyrrolidine, imidazotriazine and thienoimidazole derivatives with biological and antitumor activities  
AUTHOR(S): El-Sharief, Ahmed; Al-Amri, Abdulkhaliq; Al-Raqa, Shaya

CORPORATE SOURCE: Chemistry Department, Faculty of Science, Taibah University, Madinah Munawwarah, Saudi Arabia

SOURCE: Journal of Sulfur Chemistry (2006), 27(3), 245-263  
CODEN: JSCOFC; ISSN: 1741-5993

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:295882

AB New types of halogenated, alkylated and (bis)cyanothio-formamides were prepared and treated with isocyanates, isothiocyanates, aldehydes and dibenzylideneacetone to produce (bis)imidazolidineimino(di)thiones and (oxazolidine and bispyrrolidine)iminothiones, resp. Imidazolidineiminothiones were treated with H<sub>2</sub>S/TEA to give thiohydantoin which reacted with p-chlorobenzaldehyde to achieve the corresponding thienoimidazole derivative. Most of the synthesized products exhibited antibacterial, antifungal and antitumor activities.

IT 927814-68-4P

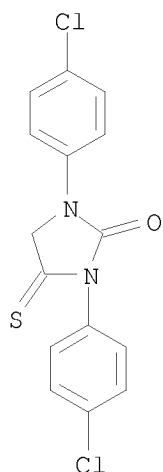
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(preparation of derivs. of imidazole, oxazole, pyrrole, imidazotriazine, imidazothiazole, thienoimidazole derivs. and study of their antibacterial, antifungal and antitumor activity)

RN 927814-68-4 HCAPLUS

CN 2-Imidazolidinone, 1,3-bis(4-chlorophenyl)-4-thioxo- (CA INDEX NAME)

10501317



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 27 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:235075 HCAPLUS

DOCUMENT NUMBER: 144:312085

TITLE: Preparation of imidazolidine derivatives as antiandrogens

INVENTOR(S): Tachibana, Kazutaka; Sato, Haruhiko; Ohta, Masateru; Nakamura, Mitsuaki; Shiraishi, Takuya; Yoshino, Hitoshi; Emura, Takashi; Honma, Akie; Onuma, Etsuro; Kawata, Hiromitsu; Taniguchi, Kenji

PATENT ASSIGNEE(S): Chugai Seiyaku Kabushiki Kaisha, Japan

SOURCE: PCT Int. Appl., 206 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

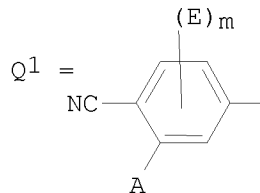
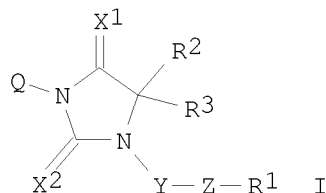
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2006028226	A1	20060316	WO 2005-JP16664	20050909
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
AU 2005280908	A1	20060316	AU 2005-280908	20050909
CA 2579886	A1	20060316	CA 2005-2579886	20050909

Updated Search

10501317

EP 1790640                    A1        20070530        EP 2005-782020                    20050909  
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR  
CN 101048381                    A        20071003        CN 2005-80036972                    20050909  
KR 2007106969                    A        20071106        KR 2007-707876                    20070406  
PRIORITY APPLN. INFO.:                    JP 2004-262888                    A    20040909  
   WO 2005-JP16664                    W    20050909  
OTHER SOURCE(S):                    MARPAT 144:312085  
GI



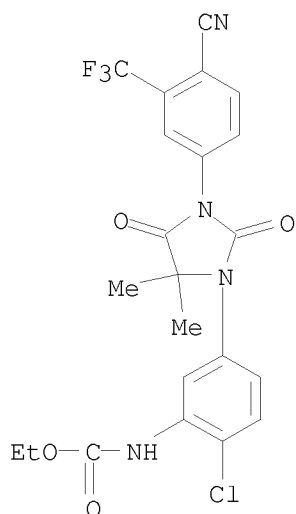
AB The title compds. I [Q = Q1, etc.; A = H, halo, ORa, etc.; E = alkyl; m = integer from 0 to 3; R2, R3 = alkyl; X1, X2 = O, S; Y = (un)substituted arylene, divalent (un)substituted 5- or 6-membered monocyclic heterocyclic group or divalent 8 to 10 membered (un)substituted fused-ring heterocyclic group; Z = CO, CO2, SO2, etc.; R1 = H, OH, (un)substituted alkyl, etc.; Ra = H, (un)substituted alkyl, (un)substituted alkylcarbonyl, etc.] are prepared. Thus, 4-[3-(1-ethoxycarbonylpiperidin-4-yl)-4,4-dimethyl-5-oxo-2-thioxoimidazolidin-1-yl]-2-trifluoromethylbenzonitrile was prepared in a multistep process. The androgen antagonist activities of compds. of this invention were demonstrated.

IT 879613-24-8P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of imidazolidine derivs. as antiandrogens)

RN 879613-24-8 HCAPLUS

CN Carbamic acid, [2-chloro-5-[3-[4-cyano-3-(trifluoromethyl)phenyl]-5,5-dimethyl-2,4-dioxo-1-imidazolidinyl]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

10501317



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 28 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:153465 HCAPLUS

DOCUMENT NUMBER: 144:350599

TITLE: A facile synthesis of 1,3,5-trisubstituted hydantoins via Ugi four-component condensation

AUTHOR(S): Ignacio, Jose Miguel; Macho, Sonia; Marcaccini, Stefano; Pepino, Roberto; Torroba, Tomas

CORPORATE SOURCE: Dipartimento di Chimica Organica 'Ugo Schiff', Universita di Firenze, Sesto Fiorentino, 50019, Italy

SOURCE: Synlett (2005), (20), 3051-3054

CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:350599

AB A facile access to 1,3,5-trisubstituted hydantoins is achieved by combining an Ugi four-component condensation with a base-induced cyclization. This two-step sequence, which differs from any other method, is exptl. simple and allows a wide variety in the substitution pattern. In this synthesis the acid component, namely trichloroacetic acid, acts as a carbonic acid equivalent

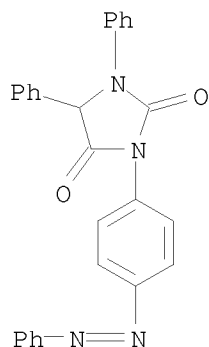
IT 881853-98-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of hydantoins via Ugi four-component condensation)

RN 881853-98-1 HCAPLUS

CN 2,4-Imidazolidinedione, 1,5-diphenyl-3-[4-(phenylazo)phenyl]- (9CI) (CA INDEX NAME)

10501317



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:117353 HCAPLUS

DOCUMENT NUMBER: 144:212803

TITLE: Preparation of aromatic compounds such as  
N-(2-phenoxypyridin-5-yl) benzamides for treating  
fibrosis

INVENTOR(S): Fukushima, Tae; Matsumura, Shuji; Takemura, Noriaki;  
Satou, Hideaki; Ito, Nobuaki; Shitsuta, Takuya;  
Tsutsui, Hironori; Tanaka, Michinori; Kan, Keizo;  
Nagao, Hitoshi; Watanabe, Kenji; Tai, Kuninori;  
Nakagawa, Takashi; Takasu, Hideki; Sakamoto, Makoto;  
Miyajima, Keisuke; Yamada, Satoshi; Kojima, Yutaka;  
Yasumura, Koichi; Ohi, Naoto; Okuno, Mitsuhiro;  
Sugiyama, Kazuhisa; Kiyono, Kunihiro; Suzuki, Takashi;  
Akamatsu, Seiji; Kodama, Takeshi; Yanagihara, Yasuo;  
Sumida, Takumi

PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 1055 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

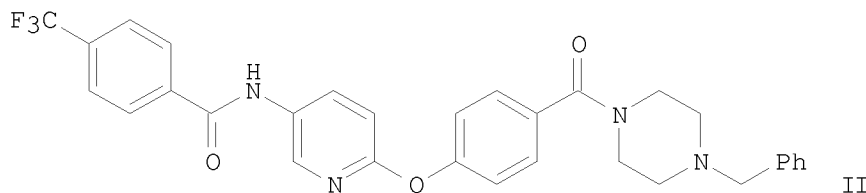
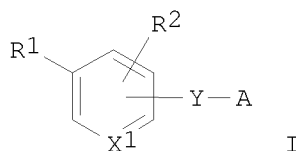
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006014012	A2	20060209	WO 2005-JP14611	20050803
WO 2006014012	A3	20061207		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,			

10501317

KG, KZ, MD, RU, TJ, TM

AU 2005268030	A1	20060209	AU 2005-268030	20050803
CA 2573223	A1	20060209	CA 2005-2573223	20050803
EP 1773797	A2	20070418	EP 2005-780290	20050803
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
CN 1993339	A	20070704	CN 2005-80026696	20050803
BR 2005014150	A	20071127	BR 2005-14150	20050803
JP 2006298893	A	20061102	JP 2005-229066	20050808
IN 2007KN00107	A	20070629	IN 2007-KN107	20070109
MX 200701215	A	20070417	MX 2007-1215	20070130
KR 2007103351	A	20071023	KR 2007-702786	20070202
US 2007270422	A1	20071122	US 2007-659689	20070206
PRIORITY APPLN. INFO.:			JP 2004-230092	A 20040806
			JP 2005-90149	A 20050325
			WO 2005-JP14611	W 20050803
OTHER SOURCE(S):			MARPAT 144:212803	
GI				



AB The title compds. I [X1 = N, CH; R1 = ZR6 (wherein Z = CO, CH(OH), etc.; R6 = 5-15 membered monocyclic, dicyclic, or tricyclic, saturated or unsatd. heterocyclic group having 1-4 N atoms, O atoms, or S atoms); R2 = H, halo or alkyl; Y = O, CO, CH(OH), alkylene, etc.; A = (un)substituted Ph, naphthyl], which have an excellent effect of suppressing the generation of collagen and less side effects, with being excellent in terms of safety, were prepared and formulated. Thus, reacting 4-[5-(4-trifluoromethylbenzoylamino)pyridin-2-yloxy]benzoic acid with 1-benzylpiperazine afforded II. Collagen synthesis inhibitory activity was tested in LI90 cells, a human stellate cell line (data given for representative compds. I).

IT 875698-26-3P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of N-(2-phenoxy-pyridin-5-yl) benzamides for treating fibrosis)

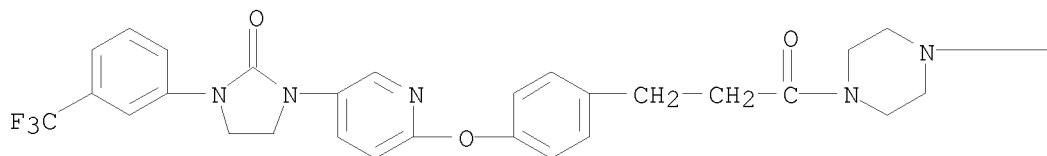
RN 875698-26-3 HCAPLUS

Updated Search

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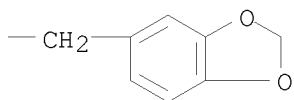
CN 2-Imidazolidinone, 1-[6-[4-[3-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]-3-oxopropyl]phenoxy]-3-pyridinyl]-3-[3-(trifluoromethyl)phenyl]-, hydrochloride (1:1) (CA INDEX NAME)

PAGE 1-A



● HCl

PAGE 1-B

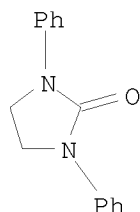


L4 ANSWER 30 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:45096 HCAPLUS  
DOCUMENT NUMBER: 144:292611  
TITLE: [3+2] Cross-Coupling Reactions of Aziridines with Isocyanates Catalyzed by Nickel(II) Iodide  
AUTHOR(S): Munegumi, Takeshi; Azumaya, Isao; Kato, Takako; Masu, Hyuma; Saito, Shinichi  
CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Tokyo University of Science, Tokyo, JAPAN, Japan  
SOURCE: Organic Letters (2006), 8(3), 379-382  
CODEN: ORLEF7; ISSN: 1523-7060  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:292611  
AB Cycloaddn. of aziridines with isocyanates proceeded smoothly in the presence of a nickel catalyst, and five iminooxazolidine derivs. were isolated in good yields. The best result was obtained when the reaction was carried out in the presence of NiI<sub>2</sub>, and a longer reaction time allowed the isomerization of the iminooxazolidine to the corresponding imidazolidinone derivs.  
IT 728-24-5P  
RL: BYP (Byproduct); PREP (Preparation)  
(preparation of iminooxazolidines by nickel(II) iodide-catalyzed [3+2] cycloaddn. of aziridines with isocyanates)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)

Updated Search



10501317



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:35517 HCAPLUS

DOCUMENT NUMBER: 144:292648

TITLE: Synthesis and Activity of 1,3,5-Triphenylimidazolidine-2,4-diones and 1,3,5-Triphenyl-2-thioxoimidazolidin-4-ones, Characterization of New CB1 Cannabinoid Receptor Inverse Agonists/Antagonists

AUTHOR(S): Muccioli, Giulio G.; Wouters, Johan; Charlier, Caroline; Scriba, Gerhard K. E.; Pizza, Teresa; Di Pace, Pierluigi; De Martino, Paolo; Poppitz, Wolfgang; Poupaert, Jacques H.; Lambert, Didier M.

CORPORATE SOURCE: Unite de Chimie pharmaceutique et de Radiopharmacie, Ecole de Pharmacie, Faculte de Medecine, Universite catholique de Louvain, Brussels, B-1200, Belg.

SOURCE: Journal of Medicinal Chemistry (2006), 49(3), 872-882  
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:292648

AB Obesity and metabolic syndrome, along with drug dependence (nicotine, alc., opiates), are two of the major therapeutic applications for CB1 cannabinoid receptor antagonists and inverse agonists. In the present study, we report the synthesis and structure-affinity relationships of 1,5-diphenylimidazolidine-2,4-dione and 1,3,5-triphenylimidazolidine-2,4-dione derivs. These new 1,3,5-triphenylimidazolidine-2,4-dione derivs. and their thio isosteres were obtained by an original pathway and exhibited interesting affinity and selectivity for the human CB1 cannabinoid receptor. A [35S]-GTPγS binding assay revealed the inverse agonist properties of the compds. at the CB1 cannabinoid receptor. Furthermore, mol. modeling studies were conducted in order to delineate the binding mode of this series of derivs. into the CB1 cannabinoid receptor. 1,3-Bis(4-bromophenyl)-5-phenylimidazolidine-2,4-dione and 1,3-bis(4-chlorophenyl)-5-phenylimidazolidine-2,4-dione are the imidazolidine-2,4-dione derivs. possessing the highest affinity for the human CB1 cannabinoid receptor reported to date.

IT 61505-60-0P

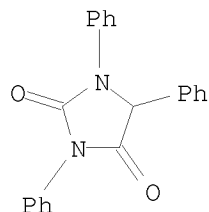
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of triphenylimidazolidinedione derivative as CB1 cannabinoid receptor inverse agonists/antagonists)

Updated Search

10501317

RN 61505-60-0 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3,5-triphenyl- (CA INDEX NAME)



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:20401 HCAPLUS

DOCUMENT NUMBER: 144:91179

TITLE: Solid polymer electrolyte, electrode for fuel cell, and the fuel cell

INVENTOR(S): Aihara, Yuichi

PATENT ASSIGNEE(S): Samsung Yokohama Research Institute, Japan

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006001083	A1	20060105	WO 2004-JP9494	20040629
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: WO 2004-JP9494 20040629

AB The solid polymer electrolyte comprises an acid and a polymer of an iminoimidazolidinedione compound The electrode contains an electrode substance and the above solid polymer electrolyte. The fuel cell has an electrolyte membrane between a pair of electrodes; where a part or whole part of the electrolyte membrane contains the above solid polymer electrolyte.

IT 81139-34-6

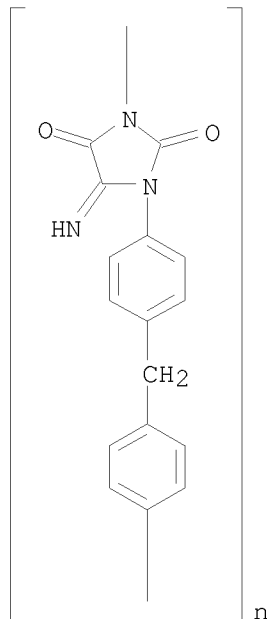
RL: DEV (Device component use); USES (Uses)

(polymer electrolytes containing iminoimidazolidinedione compound polymers for fuel cells)

Updated Search

10501317

RN 81139-34-6 HCAPLUS  
CN Poly[(4-imino-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1313897 HCAPLUS

DOCUMENT NUMBER: 144:51571

TITLE: Preparation of substituted 1H-indazoles as antagonists of melanin concentrating hormone effects on the melanin concentrating hormone receptor for treating eating disorders

INVENTOR(S): Souers, Andrew J.; Collins, Christine A.; Gao, Ju; Judd, Andrew S.; Kym, Philip R.; Mulhern, Mathew M.; Sham, Hing L.; Wodka, Dariusz

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: U.S. Pat. Appl. Publ., 59 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

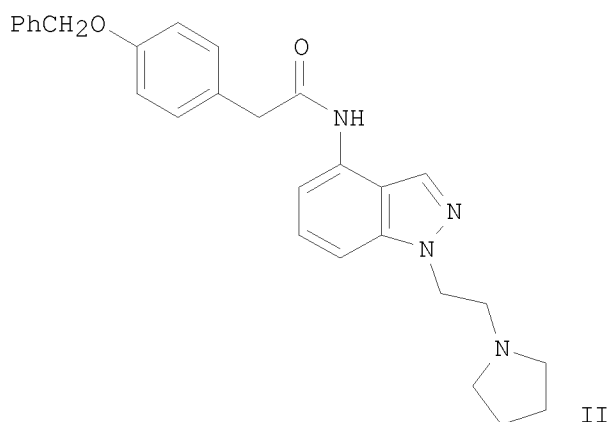
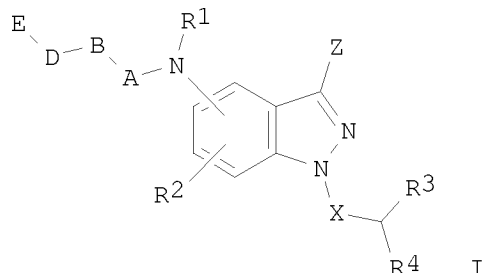
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 2005277638	A1	20051215	US 2004-22453	20041222
US 7071182	B2	20060704		
PRIORITY APPLN. INFO.:			US 2003-532301P	P 20031223
OTHER SOURCE(S):			CASREACT 144:51571; MARPAT 144:51571	

Updated Search

10501317

GI



AB The invention is related to compds. of formula (I) [A = CO, SO, SO<sub>2</sub>, etc.; B = alkylene, NH and derivs., etc.; D = a bond, alkylene, aryl, arylalkyl, heterocyclyl, heterocyclylalkyl; E = alkyl, aryl, cycloalkoxy, etc.; R<sub>1</sub> = H, alkyl; R<sub>2</sub> = H, halo, alkyl, alkoxy; R<sub>3</sub> = NH<sub>2</sub> and derivs.; R<sub>4</sub> = H, alkyl, etc.; X = (CHR<sub>5</sub>)<sub>m</sub>; each R<sub>5</sub> = independently H, alkyl; m = 1-3; Z = H, alkyl, halo; provided that when B = NH and derivs., or NH-alkyl and derivs., then D = aryl/heterocyclyl/alkyl, aryl, heterocyclyl], and their therapeutically suitable salts or prodrugs, which antagonize the effects of melanin-concentrating hormone (MCH) through the melanin concentrating hormone

receptor which is useful for the prevention or treatment of eating disorders, weight gain, obesity, abnormalities in reproduction and sexual behavior, thyroid hormone secretion, diuresis and water/electrolyte homeostasis, sensory processing, memory, sleeping, arousal, anxiety, depression, seizures, neurodegeneration and psychiatric disorders. Thus, amidation of (4-benzyloxyphenyl)acetic acid with [1-[2-(pyrrolidin-1-yl)ethyl]-1H-indazol-4-yl]amine (preparation given) gave indazole II. I inhibited MCH induced fluorescence at a dose of 10 μM. Oral administration of I at 100 mpk for 2 wk, twice a day, to mice resulted in a >5% weight loss.

IT 860021-61-OP, 1-(4-Phenoxyphenyl)-3-[1-[2-(pyrrolidin-1-yl)ethyl]-1H-indazol-5-yl]imidazolidin-2-one

Updated Search

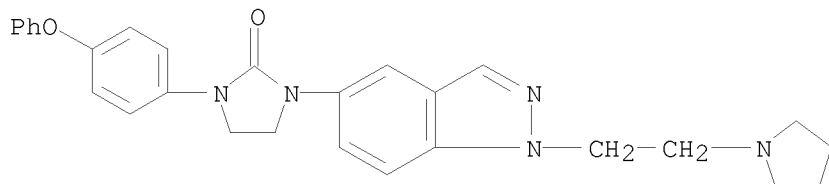
10501317

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of substituted 1H-indazoles as antagonists of melanin concentrating hormone for treating various diseases)

RN 860021-61-0 HCAPLUS

CN 2-Imidazolidinone, 1-(4-phenoxyphenyl)-3-[1-[2-(1-pyrrolidinyl)ethyl]-1H-indazol-5-yl]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 34 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1260610 HCAPLUS

DOCUMENT NUMBER: 144:22946

TITLE: Preparation of nitrogen-heteroaryl-containing protein kinase modulators for use against cancer and other diseases

INVENTOR(S): Geuns-Meyer, Stephanie D.; Hodous, Brian L.; Chaffee, Stuart C.; Tempest, Paul A.; Olivieri, Philip R.; Johnson, Rebecca E.; Albrecht, Brian K.; Patel, Vinod F.; Cee, Victor J.; Kim, Joseph L.; Bellon, Steven; Zhu, Xiaotian; Cheng, Yuan; Xi, Ning; Romero, Karina; Nguyen, Hanh Nho; Deak, Holly L.

PATENT ASSIGNEE(S): Amgen Inc., USA

SOURCE: PCT Int. Appl., 540 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005113494	A2	20051201	WO 2005-US16346	20050509
WO 2005113494	A3	20060316		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,			

Updated Search

10501317

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG

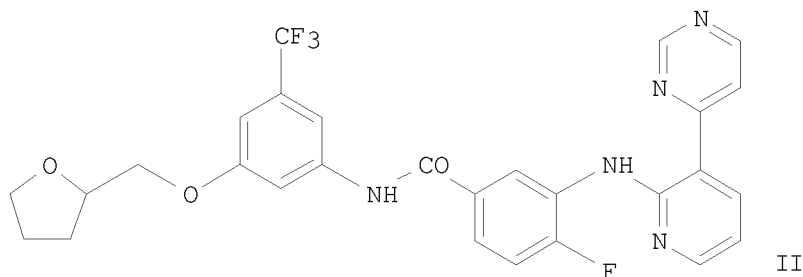
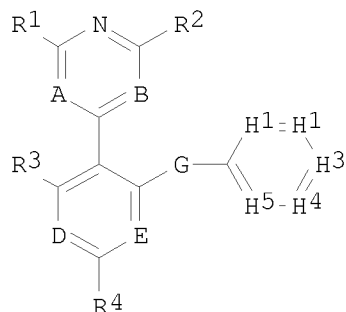
AU 2005245386	A1	20051201	AU 2005-245386	20050509
CA 2564355	A1	20051201	CA 2005-2564355	20050509
US 2006009453	A1	20060112	US 2005-126000	20050509
EP 1751136	A2	20070214	EP 2005-779977	20050509

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,  
HR, LV, MK, YU

JP 2007536280	T	20071213	JP 2007-511723	20050509
MX 2006PA12613	A	20070131	MX 2006-PA12613	20061031

PRIORITY APPLN. INFO.: US 2004-569193P P 20040507  
WO 2005-US16346 W 20050509

OTHER SOURCE(S): MARPAT 144:22946  
GI



AB The present invention relates to nitrogen-heteroaryl-containing compds. (shown as I; variables defined below; e.g. 4-fluoro-3-[[3-(pyrimidin-4-yl)pyridin-2-yl]amino]-N-[3-[(tetrahydrofuran-2-yl)methoxy]-5-trifluoromethylphenyl]benzamide (shown as II)) and synthetic intermediates, which are capable of modulating various protein kinase receptor enzymes and, thereby, influencing various disease states and conditions related to the activities of these kinases. For example, the compds. are capable of modulating kinase enzymes thereby influencing the process of angiogenesis and treating angiogenesis-related diseases and other proliferative disorders, including cancer and inflammation. The invention also includes pharmaceutical compns., including the compds., and methods of treating disease states related to the activity of protein kinases. For I: A is N or CR10; B is N or CR11; D is N or CR12; E is N or CH; G is NR13, O, S, C(O), S(O), SO2, CR13R13 or CR13R14; H1 is N or CR5;

10501317

H2 is N or CR6; H3 is N or CR7; H4 is N or CR5; H5 is N or CR9; R1 is H, halo, haloalkyl, NO2, CN, NR13R13, OR13, SR13 (CHR13)nR13, or R15; alternatively R1 taken together with R10 forms a partially or fully unsatd. 5- or 6-membered ring of C atoms optionally including 1-3 heteroatoms = O, N and S, and the ring (un)substituted; R2 is H, halo, haloalkyl, oxo, NO2, CN, SR13, et al.; each of R3 and R4, independently, is H, halo, haloalkyl, oxo, NO2, CN, SR13, et al.; addnl. details including provisos are given in the claims. Although the methods of preparation are not claimed, preps. and/or characterization data for >1200 examples of I and intermediates are included. For example, II was prepared in 2 steps starting with condensation of 4-(2-chloropyridin-3-yl)pyrimidine (preparation given) with 3-amino-4-fluorobenzoic acid in Et3N-TFA to give 4-fluoro-3-[[3-(pyrimidin-4-yl)pyridin-2-yl]amino]benzoic acid, which was condensed with [3-[(tetrahydrofuran-2-yl)methoxy]-5-trifluoromethylphenyl]amine using EDC and DMAP in DMF.

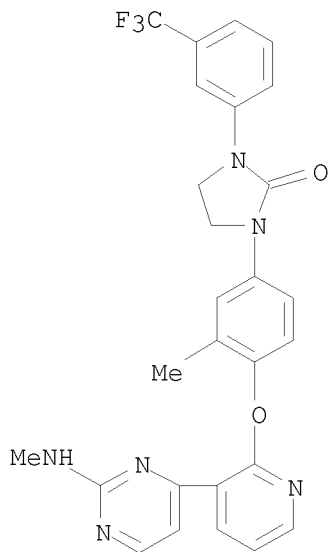
IT 870222-02-9P, 1-[3-Methyl-4-[[3-[2-(methylamino)pyrimidin-4-yl]pyridin-2-yl]oxy]phenyl]-3-[3-(trifluoromethyl)phenyl]imidazolidin-2-one

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of nitrogen-heteroaryl-containing protein kinase modulators for use against cancer and other diseases)

RN 870222-02-9 HCAPLUS

CN 2-Imidazolidinone, 1-[3-methyl-4-[[3-[2-(methylamino)-4-pyrimidinyl]-2-pyridinyl]oxy]phenyl]-3-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)



L4 ANSWER 35 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1123789 HCAPLUS

DOCUMENT NUMBER: 143:427366

TITLE: Compositions and methods for treatment of inflammatory conditions using steroid sparing agents

Updated Search

10501317

INVENTOR(S): Lieberburg, Ivan  
PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 782 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005097162	A2	20051020	WO 2005-US11307	20050401
WO 2005097162	A3	20060406		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2005231467	A1	20051020	AU 2005-231467	20050401
CA 2561164	A1	20051020	CA 2005-2561164	20050401
US 2006004019	A1	20060105	US 2005-95822	20050401
EP 1763361	A2	20070321	EP 2005-763852	20050401
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR			
JP 2007531735	T	20071108	JP 2007-506344	20050401
PRIORITY APPLN. INFO.:			US 2004-558121P	P 20040401
			WO 2005-US11307	W 20050401

OTHER SOURCE(S): MARPAT 143:427366

AB This invention relates generally to the use of a steroid sparing agent for the preparation of a medicament for the treatment of inflammatory bowel diseases (IBD), asthma, multiple sclerosis (MS), rheumatoid arthritis (RA), graft vs. host disease (GVHD), host vs. graft disease, and various spondyloarthropathies, comprising administering a steroid sparing Ig that modulates  $\alpha 4\beta 1$  and  $\alpha 4\beta 7$  integrins, or an amino acid-based small (heterocyclic) mol. to a patient in need thereof. The invention also relates generally to combination therapies for the treatment of these conditions, including an immunosuppressant, an anti-TNF compound, and a 5-ASA compound. For example, a steroid sparing agent was prepared by converting L-tyrosine tert-Bu ester to L-4-(N,N-dimethylcarbamoyloxy)-phenylalanine tert-Bu ester and coupling it to 4,6-dichloro-5-piperidin-1-yl-pyrimidine to give N-(5-piperidin-yl)pyrimidin-4-yl-L-4-(N,N-dimethylcarbamoyloxy)phenylalanine. Also, Natalizumab, a humanized monoclonal IgG4 antibody to  $\alpha 4$  integrin, was evaluated in subjects with Chron's disease. Monthly administration of Natalizumab for 6 mo was well tolerated and enabled subjects to be successfully withdrawn from steroids.

IT 220303-56-0P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of steroid sparing agents for treatment of inflammatory

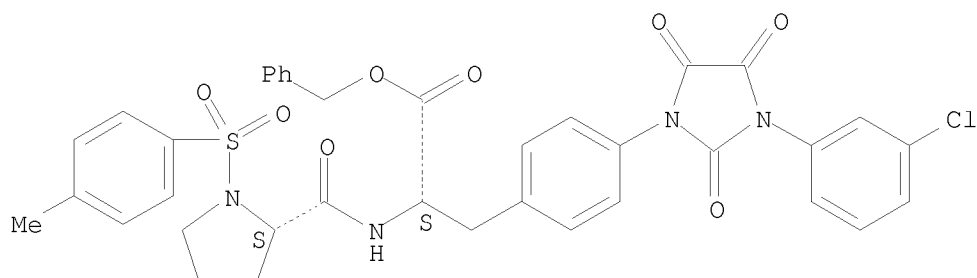
Updated Search



10501317

	conditions)
RN	220303-56-0 HCAPLUS
CN	L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-[3-(3-chlorophenyl)-2,4,5-trioxo-1-imidazolidinyl]-, phenylmethyl ester (9CI)
	(CA INDEX NAME)

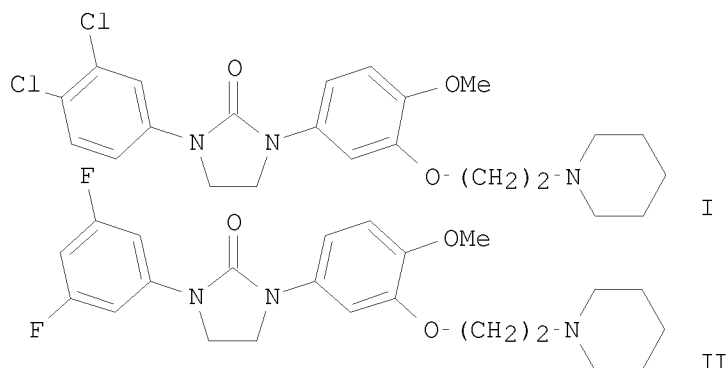
Absolute stereochemistry.



L4 ANSWER 36 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:1084921 HCAPLUS  
DOCUMENT NUMBER: 143:432011  
TITLE: A series of bisaryl imidazolidin-2-ones has shown to  
be selective and orally active 5-HT<sub>2C</sub> receptor  
antagonists  
AUTHOR(S): Goodacre, Caroline J.; Bromidge, Steven M.; Clapham,  
David; King, Frank D.; Lovell, Peter J.; Allen, Mike;  
Campbell, Lorraine P.; Holland, Vicky; Riley, Graham  
J.; Starr, Kathryn R.; Trail, Brenda K.; Wood, Martyn  
D.  
CORPORATE SOURCE: Psychiatry Centre of Excellence in Drug Discovery,  
GlaxoSmithkline Pharmaceuticals, Essex, CM19 5AW, UK  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2005),  
15(22), 4989-4993  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 143:432011  
GI

Updated Search

10501317



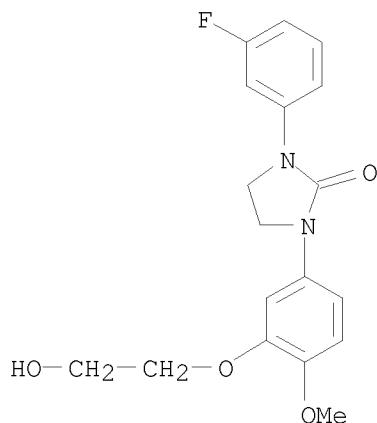
AB Bisaryl cyclic ureas have been identified as high affinity 5-HT<sub>2C</sub> receptor antagonists with selectivity over 5-HT<sub>2A</sub> and 5-HT<sub>2B</sub>. Compds. such as (I) and (II) have shown oral activity in a centrally mediated pharmacodynamic model of 5-HT<sub>2C</sub> function in rodents.

IT 561277-31-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(series of bisaryl imidazolidin-2-ones has shown to be selective and orally active 5-HT<sub>2C</sub> receptor antagonists)

RN 561277-31-4 HCAPLUS

CN 2-Imidazolidinone, 1-(3-fluorophenyl)-3-[3-(2-hydroxyethoxy)-4-methoxyphenyl]- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 37 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:951706 HCAPLUS  
DOCUMENT NUMBER: 144:467617  
TITLE: Ortho amides (alkane-1,1,1-triamines)  
AUTHOR(S): Kantlehner, W.

Updated Search

CORPORATE SOURCE: Fachbereich Chemie/Organische Chemie, Fachhochschule  
Aalen, Aalen, 73430, Germany

SOURCE: Science of Synthesis (2005), 22, 795-841  
CODEN: SSCYJ9

PUBLISHER: Georg Thieme Verlag

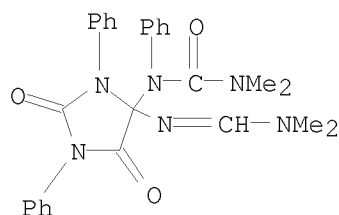
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review of the preparation and synthetic applications of ortho amides.  
IT 77066-66-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and synthetic applications of ortho amides)

RN 77066-66-1 HCAPLUS

CN Urea, N-[4-[[[(dimethylamino)methylene]amino]-2,5-dioxo-1,3-diphenyl-4-  
imidazolidinyl]-N',N'-dimethyl-N-phenyl- (9CI) (CA INDEX NAME)

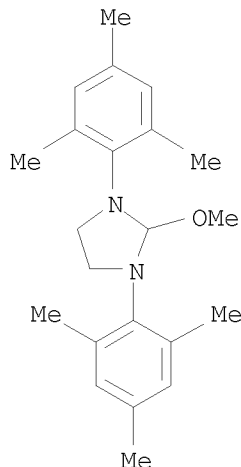


L4 ANSWER 38 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:727658 HCAPLUS  
DOCUMENT NUMBER: 144:312385  
TITLE: Alcohol adducts of N-heterocyclic carbenes as  
single-component catalyst/initiators for ring-opening  
polymerization of lactide  
AUTHOR(S): Culkin, Darcy A.; Csihony, S.; Sentman, Alan C.; Dove,  
Andrew P.; Hedrick, James L.; Waymouth, Robert M.  
CORPORATE SOURCE: Department of Chemistry, Stanford University,  
Stanford, CA, 94305, USA  
SOURCE: Polymer Preprints (American Chemical Society, Division  
of Polymer Chemistry) (2005), 46(2), 832-833  
CODEN: ACPPAY; ISSN: 0032-3934  
PUBLISHER: American Chemical Society, Division of Polymer  
Chemistry  
DOCUMENT TYPE: Journal; (computer optical disk)  
LANGUAGE: English  
AB N-Heterocyclic carbenes catalyze the ring-opening polymerization of lactide  
with  
fast reaction rates under mild conditions to generate polymers of  
controlled mol. weight with narrow polydispersity. Several strategies were  
developed to generate free carbenes in situ for the organocatalytic  
polymerization of lactide.  
IT 465543-01-5  
RL: CAT (Catalyst use); USES (Uses)  
(alc. adducts of heterocyclic carbenes as single-component catalyst or

Updated Search

10501317

initiators for ring-opening polymerization of lactide)  
RN 465543-01-5 HCAPLUS  
CN Imidazolidine, 2-methoxy-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 39 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:696488 HCAPLUS  
DOCUMENT NUMBER: 143:196828  
TITLE: Gel electrolyte and electrode for fuel cell  
INVENTOR(S): Aihara, Yuichi  
PATENT ASSIGNEE(S): Japan  
SOURCE: U.S. Pat. Appl. Publ., 7 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005170252	A1	20050804	US 2005-37231	20050119
JP 2005209379	A	20050804	JP 2004-11869	20040120
KR 2005076586	A	20050726	KR 2004-73362	20040914
PRIORITY APPLN. INFO.:			JP 2004-11869	A 20040120
			KR 2004-73362	A 20040914

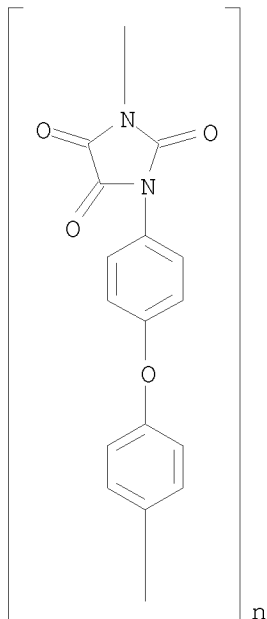
AB A gel electrolyte can have high proton conductivity even at conditions of no humidity and high temps. and can have increased mech. strength. The gel electrolyte can include an acid and a matrix polymer capable of being swollen by the acid. The matrix polymer can be a polyparabanic acid or a derivative thereof.

IT 31626-60-5P  
RL: DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)  
(gel electrolyte and electrode for fuel cell)

Updated Search

10501317

RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 40 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:695899 HCAPLUS  
DOCUMENT NUMBER: 143:196811  
TITLE: Gel electrolytes showing high proton conductivity and mechanical strength, fuel cell electrodes containing them, and fuel cells  
INVENTOR(S): Aihara, Yuichi  
PATENT ASSIGNEE(S): Samsung SDI Co., Ltd., S. Korea  
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

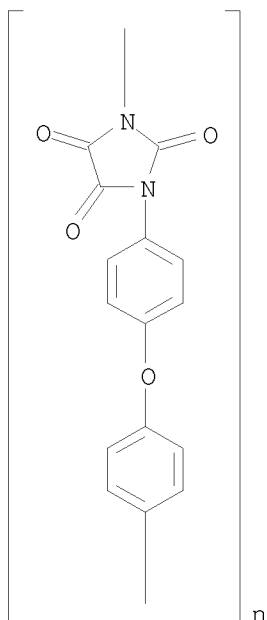
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005209379	A	20050804	JP 2004-11869	20040120
KR 2005076586	A	20050726	KR 2004-73362	20040914
US 2005170252	A1	20050804	US 2005-37231	20050119
PRIORITY APPLN. INFO.:			JP 2004-11869	A 20040120
			KR 2004-73362	A 20040914

AB The gel electrolytes contain acids and acid-swelling matrix polymers comprising polyparabanic acids. The fuel cells using the electrodes and electrolyte membranes containing the gel electrolytes show high proton conductivity

Updated Search

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at high temperature under nonhumidified condition.  
IT 31626-60-5P  
RL: DEV (Device component use); IMF (Industrial manufacture); TEM  
(Technical or engineered material use); PREP (Preparation); USES (Uses)  
(phosphoric acid-doped; gel electrolytes showing high proton conductivity  
and  
mech. strength for fuel cell electrodes and electrolyte membranes)  
RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)

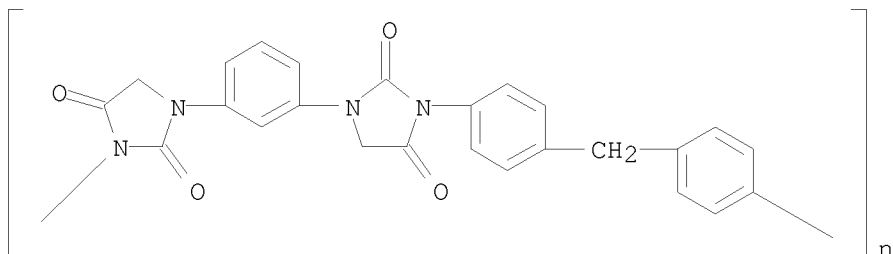


L4 ANSWER 41 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:481375 HCAPLUS  
DOCUMENT NUMBER: 144:450918  
TITLE: Polymeric ureas and their phosphorus analogues  
AUTHOR(S): Guichard, G.  
CORPORATE SOURCE: Immunologie et Chimie therapeutiques, Inst. de  
Biologie Moleculaire et Cellulaire, UPR 9021 CNRS,  
Strasbourg, 67084, Fr.  
SOURCE: Science of Synthesis (2005), 18, 759-820  
CODEN: SSCYJ9  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
AB A review of the preparation and synthetic applications of polymeric ureas and  
their phosphorus analogs.  
IT 31671-96-2P, Ethyl m-phenylenebisiminoacetate-MDI copolymer,  
polyhydantoin SRU  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and synthetic applications of polymeric ureas and their

Updated Search

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phosphorus analogs)  
RN 31671-96-2 HCAPLUS  
CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,3-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 202 THERE ARE 202 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 42 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:479498 HCAPLUS

DOCUMENT NUMBER: 143:173384

TITLE: Single-component catalyst/initiators for the organocatalytic ring-opening polymerization of lactide  
AUTHOR(S): Csihony, Szilard; Culkin, Darcy A.; Sentman, Alan C.; Dove, Andrew P.; Waymouth, Robert M.; Hedrick, James L.

CORPORATE SOURCE: Center for Polymeric Interfaces and Macromolecular Assemblies, Department of Chemistry, Stanford University, Stanford, CA, 94305, USA

SOURCE: Journal of the American Chemical Society (2005), 127(25), 9079-9084

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:173384

AB The synthesis and characterization of a series of primary and secondary alc. adducts of 1,3-dimesitylimidazolin-2-ylidene is described. These adducts are stable as solids at room temperature, but readily release alc. and the free carbene in solution. These alc. adducts function as excellent single-component catalyst/initiators for the ring-opening polymerization of lactide under mild conditions, providing polymers with controlled mol. wts. and narrow polydispersities. Multifunctional adducts were used to prepare poly(lactide)s of more complex architectures.

IT 465543-01-5P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

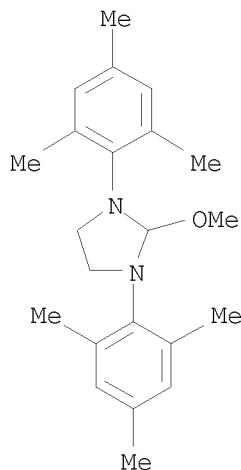
(polymerization catalyst; single-component catalyst/initiators for organocatalytic ring-opening polymerization of lactide)

RN 465543-01-5 HCAPLUS

CN Imidazolidine, 2-methoxy-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)

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REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 43 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:461070 HCAPLUS

DOCUMENT NUMBER: 143:145783

TITLE: Synthesis and evaluation of urea-based indazoles as melanin-concentrating hormone receptor 1 antagonists for the treatment of obesity

AUTHOR(S): Souers, Andrew J.; Gao, Ju; Wodka, Dariusz; Judd, Andrew S.; Mulhern, Mathew M.; Napier, James J.; Brune, Michael E.; Bush, Eugene N.; Brodjian, Sevan J.; Dayton, Brian D.; Shapiro, Robin; Hernandez, Lisa E.; Marsh, Kennan C.; Sham, Hing L.; Collins, Christine A.; Kym, Philip R.

CORPORATE SOURCE: Metabolic Disease Research, Abbott Laboratories, Abbott Park, IL, 60064, USA

SOURCE: Bioorganic & Medicinal Chemistry Letters (2005), 15(11), 2752-2757

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:145783

AB A series of urea-based N-1-(2-aminoethyl)-indazoles was synthesized and evaluated for melanin-concentrating hormone receptor 1 (MCHr1) antagonism in both

binding and functional assays. Several compds. that acted as MCHr1 antagonists were identified, and optimization afforded a compound with excellent binding affinity, good functional potency, and oral efficacy in a chronic model for weight loss in diet-induced obese mice.

IT 860021-61-0P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis and evaluation of urea-based indazoles as melanin-concentrating

Updated Search

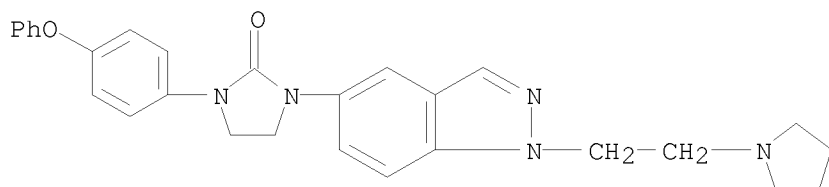


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hormone receptor 1 antagonists for treatment of obesity)

RN 860021-61-0 HCAPLUS

CN 2-Imidazolidinone, 1-(4-phenoxyphenyl)-3-[1-[2-(1-pyrrolidinyl)ethyl]-1H-indazol-5-yl]- (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 44 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:452781 HCAPLUS

DOCUMENT NUMBER: 144:212713

TITLE: Synthesis and characterization of a novel protein tyrosine phosphatase inhibitor, 2-(cyclobutylamino)-N-(2-furylmethyl)-2-thioxoacetamide

AUTHOR(S): Kobayashi-Matsunaga, Y.; Ishii, T.; Hamaguchi, T.; Osada, H.; Sato, M.

CORPORATE SOURCE: Medicinal Research Laboratories, Taisho Pharmaceutica Co., Ltd, Saitama, 331-9530, Japan

SOURCE: Letters in Drug Design & Discovery (2005), 2(3), 224-227

CODEN: LDDDAW; ISSN: 1570-1808

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:212713

AB The synthesis and biol. activities of a series of 2-amino-2-thioxoacetamide derivs. are described. These compds. have inhibitory effects against the protein tyrosine phosphatase activity of CD45. The title compound inhibited passive cutaneous anaphylaxis reaction in vivo.

IT 875557-35-0P

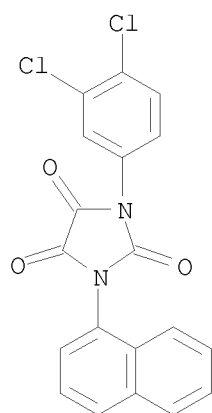
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of aminothioxoacetamides as protein tyrosine phosphatase inhibitors)

RN 875557-35-0 HCAPLUS

CN Imidazolidinetrione, (3,4-dichlorophenyl)-1-naphthalenyl- (9CI) (CA INDEX NAME)

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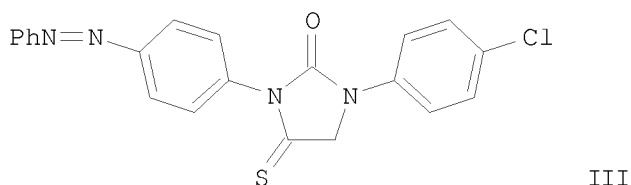
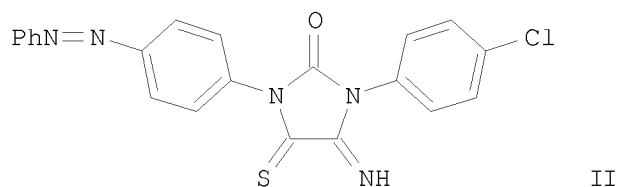
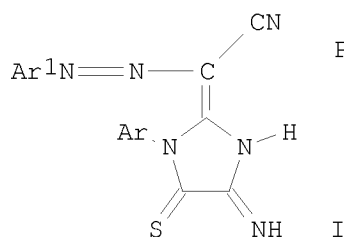


REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 45 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:404665 HCAPLUS  
DOCUMENT NUMBER: 144:170920  
TITLE: Syntheses of some novel imidazolidinethiones and condensed imidazoles containing arylazo moieties starting from cyanothioformamides  
AUTHOR(S): El-Sharief, Ahmed M. Sh.; El-Gaby, Mohamed S. A.; Atalla, Ahmed A.; El-Adasy, Abu-Bakr A. A. M.  
CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Al-Azhar University, Cairo, Egypt  
SOURCE: Heteroatom Chemistry (2005), 16(3), 218-225  
CODEN: HETCE8; ISSN: 1042-7163  
PUBLISHER: John Wiley & Sons, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:170920  
GI

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AB Cyclocondensation of cyanothioformamides  $\text{ArNHC(S)CN}$  [ $\text{Ar}$  = substituted Ph] with arylhydrazonomalononitriles  $\text{Ar}_1\text{N:NCH(CN)}_2$  [ $\text{Ar}_1$  = substituted Ph] afforded the novel imidazole derivs. I in good yields. Isothiocyanatoazobenzene 4-( $\text{PhN:N}$ ) $\text{C}_6\text{H}_4\text{NCS}$  was allowed to react with potassium cyanide and gave the new cyanothioformamide 4-( $\text{PhN:N}$ ) $\text{C}_6\text{H}_4\text{NHC(S)CN}$ , which was reacted with 4-chlorophenyl isocyanate to yield imidazolidinethione II. II was subjected to reaction with hydrochloric acid, o-phenylenediamine, 4-methylaniline, and hydrogen sulfide. Also, the reactivity of thiohydantoin III toward some electrophilic reagents such as N,N-dimethylformamide dimethylacetal and arylidenemalononitriles was investigated. The structure of the synthesized compds. was established by anal. and spectral data.

IT 874444-19-6P

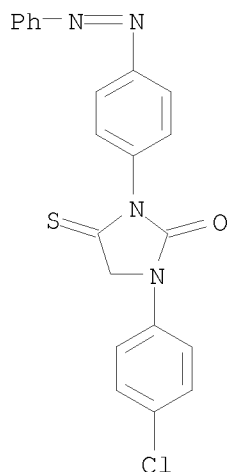
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of imidazolidinethiones and condensed imidazoles containing arylazo moieties starting from cyanothioformamides)

RN 874444-19-6 HCAPLUS

CN 2-Imidazolidinone, 1-(4-chlorophenyl)-3-[4-(phenylazo)phenyl]-4-thioxo-(9CI) (CA INDEX NAME)

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REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 46 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238947 HCAPLUS

DOCUMENT NUMBER: 142:316831

TITLE: Preparation of amides of pyrazolamines and anilines as well as analogs as cytokine inhibitors for the treatment of inflammatory diseases

INVENTOR(S): Boman, Erik; Ceide, Susana C.; Dahl, Russell; Delaet, Nancy G. J.; Ernst, Justin; Montalban, Antonio G.; Kahl, Jeffrey D.; Larson, Christopher; Miller, Stephen; Nakanishi, Hiroshi; Roberts, Edward; Saiah, Eddine; Sullivan, Robert; Wang, Zhijun

PATENT ASSIGNEE(S): Kemia, Inc., USA

SOURCE: PCT Int. Appl., 316 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023761	A2	20050317	WO 2004-US29372	20040910
WO 2005023761	A3	20050714		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

Updated Search

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AU 2004270733	A1	20050317	AU 2004-270733	20040910
CA 2538820	A1	20050317	CA 2004-2538820	20040910
US 2005107399	A1	20050519	US 2004-939324	20040910
EP 1670787	A2	20060621	EP 2004-809707	20040910

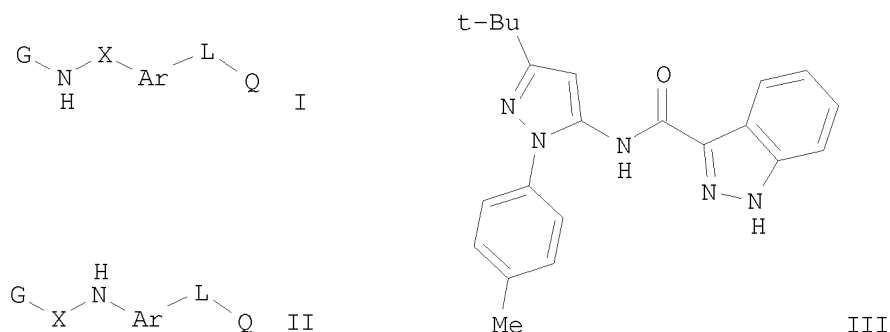
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

BR 2004014313	A	20061107	BR 2004-14313	20040910
CN 1878769	A	20061213	CN 2004-80033055	20040910
JP 2007505127	T	20070308	JP 2006-526272	20040910
KR 2007020370	A	20070221	KR 2006-705055	20060310
MX 2006PA02853	A	20060614	MX 2006-PA2853	20060313
IN 2006KN00791	A	20080215	IN 2006-KN791	20060331

PRIORITY APPLN. INFO.:

US 2003-502569P	P	20030911
US 2003-531234P	P	20031218
US 2004-575704P	P	20040528
US 2004-585012P	P	20040702
WO 2004-US29372	W	20040910

OTHER SOURCE(S): CASREACT 142:316831; MARPAT 142:316831  
GI



AB Title compds., such as I and II (four Markush structures are claimed), wherein X = C(O), C(S) or CH<sub>2</sub>; G = (un)substituted carbocyclyl or heterocyclyl; Ar = indazolyl, indolyl, pyrazolyl, alkyl, etc.; L = covalent bond or (un)substituted carbon chain; Q = H, (un)substituted amino, cycloalkyl, heterocyclyl, alkoxy or sulfonyl; with some limitations and exclusions, and stereoisomers, tautomers, solvates, prodrugs and pharmaceutically acceptable salts thereof, were prepared as cytokine inhibitors. For instance, cyclization of p-tolylhydrazine hydrochloride with 4,4-dimethyl-3-oxopentanenitrile to the corresponding pyrazolamine (92% yield) followed by EDC-mediated coupling with indazole-3-carboxylic acid gave indazolopyrazole III (40% yield). I were found to have activity in the TNFα ELISA assay, with some compds. having IC<sub>50</sub> < 10 μM. Therefore, I and their pharmaceutical compns. are useful in preventing or treating conditions mediated by cytokines, such as arthritis and inflammatory diseases.

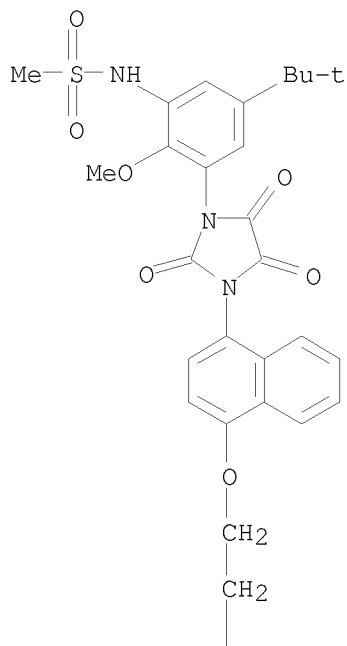
IT 848146-09-8P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(inhibitor; preparation of amides of pyrazolamines and anilines as well as

Updated Search

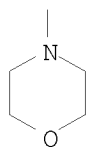
10501317

analogs as cytokine inhibitors)  
RN 848146-09-8 HCAPLUS  
CN Methanesulfonamide, N-[5-(1,1-dimethylethyl)-2-methoxy-3-[3-[4-[2-(4-morpholinyl)ethoxy]-1-naphthalenyl]-2,4,5-trioxo-1-imidazolidinyl]phenyl]-  
(CA INDEX NAME)

PAGE 1-A



PAGE 2-A

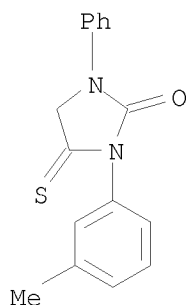


L4 ANSWER 47 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:229726 HCAPLUS  
DOCUMENT NUMBER: 144:69753  
TITLE: Reactions of cyanothioformamide and thiohydantoin derivatives with some arylidenes of cyanothioacetamide and other electrophilic and nucleophilic reagents  
AUTHOR(S): El-Sharief, A. M. Sh.; Mahmoud, F. F.; Taha, N. M.; Ahmed, E. M.  
CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar University (for Boys), Cairo, Egypt  
SOURCE: Phosphorus, Sulfur and Silicon and the Related

Updated Search

10501317

Elements (2005), 180(2), 573-589  
CODEN: PSSLEC; ISSN: 1042-6507  
PUBLISHER: Taylor & Francis, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 144:69753  
AB N-(1,5-Dimethyl-3-oxo-2-phenyl-2,3-dihydro-1H-pyrazol-4-yl)cyanothioformamide was synthesized from the corresponding 4-amino-pyrazole. Various cyanothioformamides were reacted with different arylidenes of cyanothioacetamide to produce either 4-imino-5-thioxo-3-(pyrroline & pyrrolidine)carbonitrile or pyrrolo[3,2-d]thiazole. Interaction of thiohydantoin with the arylidenes of either malononitrile or cyanothioacetamide furnished the same 5-aminothiopyrano[2,3-d]-imidazole-6-carbonitriles. Also, thiohydantoin reacted with the anilide of chloroacetic acid and with anthranilic acid to produce thieno[2,3-d]-imidazole-2-one and imidazo[4,5-b]quinoline-2,9-dione, resp. 872042-23-4P  
IT RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(reactions of cyanothioformamide and thiohydantoin derivs. with arylidenes of cyanothioacetamide and other electrophilic and nucleophilic reagents and antimicrobial activity of products)  
RN 872042-23-4 HCAPLUS  
CN 2-Imidazolidinone, 3-(3-methylphenyl)-1-phenyl-4-thioxo- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 48 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:160886 HCAPLUS  
DOCUMENT NUMBER: 142:240851  
TITLE: Four or Five coordinate metal complexes useful in metathesis and other reactions, supported catalyst manufacture, and catalyst intermediates  
INVENTOR(S): Walter, Francis; De Clercq, Bob  
PATENT ASSIGNEE(S): Belg.  
SOURCE: U.S. Pat. Appl. Publ., 61 pp., Cont.-in-part of Appl. No. PCT/BE03/00008.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English

Updated Search

10501317

FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005043541	A1	20050224	US 2004-894308	20040719
EP 1329455	A1	20030723	EP 2002-75250	20020122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
WO 2003062253	A1	20030731	WO 2003-BE8	20030122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			EP 2002-75250	A 20020122
			US 2002-349956P	P 20020201
			WO 2003-BE8	A2 20030122

OTHER SOURCE(S): MARPAT 142:240851

AB This metal complex is useful as catalyst components in metathesis reactions and in reactions involving the transfer of an atom or group to an ethylenically or acetylenically unsatd. compound or another reactive substrate and, with respect to a sub-class, for the polymerization of  $\alpha$ -olefins and optionally conjugated dienes, with high activity at moderate temps. Polymers with very narrow mol. weight distribution by a living reaction are made. Making the metal complexes involves novel intermediates. Derivs. of the metal complexes are suitable for covalent bonding to a carrier, the product of such covalent bonding being useful as a supported catalyst for heterogeneous catalytic reactions. It also provides a direct 1-step synthesis of pyrrole, furan and thiophene compds. from diallyl compds.

IT 340810-49-3

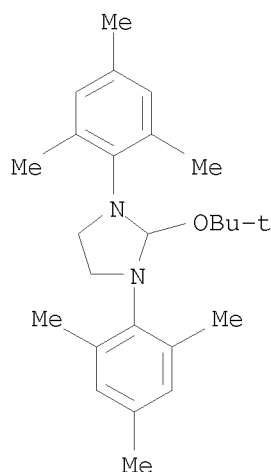
RL: RCT (Reactant); RACT (Reactant or reagent)  
(metal carbene complexes useful in metathesis and other reactions)

RN 340810-49-3 HCAPLUS

CN Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)



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L4 ANSWER 49 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:153350 HCAPLUS

DOCUMENT NUMBER: 143:115483

TITLE: One-pot, regioselective synthesis of 1,3,5-trisubstituted hydantoins by domino condensation/aza-Michael/O→N acyl migration of unsymmetrical carbodiimides with  $\alpha,\beta$ -unsaturated carboxylic acids

AUTHOR(S): Volonterio, Alessandro; Zanda, Matteo

CORPORATE SOURCE: Dipartimento di Chimica, Materiali ed Ingegneria Chimica "G. Natta" del Politecnico di Milano, Milan, I-20131, Italy

SOURCE: Letters in Organic Chemistry (2005), 2(1), 44-46  
CODEN: LOCEC7; ISSN: 1570-1786

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 143:115483

AB 1,3,5-Trisubstituted hydantoins having two different substituents at the nitrogen atoms could be smoothly prepared by a domino condensation/aza-Michael/O→N acyl migration of unsym. carbodiimides with activated  $\alpha,\beta$ -unsatd. carboxylic acids. The regiochem. outcome of the process, as well as scope and limits, are discussed.

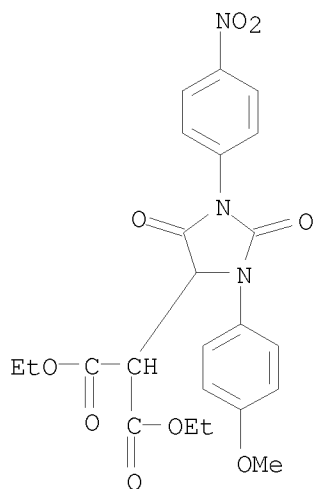
IT 848984-28-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(one-pot, regioselective preparation of trisubstituted hydantoins by domino condensation/aza-Michael/O→N acyl migration of unsym. carbodiimides with  $\alpha,\beta$ -unsatd. carboxylic acids)

RN 848984-28-1 HCAPLUS

CN Propanedioic acid, [3-(4-methoxyphenyl)-1-(4-nitrophenyl)-2,5-dioxo-4-imidazolidinyl]-, diethyl ester (9CI) (CA INDEX NAME)

10501317



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 50 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:141036 HCAPLUS

DOCUMENT NUMBER: 142:240449

TITLE: Preparation of quinolines and quinazolines as ligands for 5-HT<sub>1</sub> receptors and their use in the treatment of CNS disorders, in particular serotonin-related disorders

INVENTOR(S): Bergauer, Markus; Bertani, Barbara; Biagetti, Matteo; Bromidge, Steven Mark; Falchi, Alessandro; Leslie, Colin Philip; Merlo, Giancarlo; Pizzi, Domenica Antonia; Rinaldi, Marilisa; Stasi, Luigi Piero; Tibasco, Jessica; Vong, Antonio Kuok Keong; Ward, Simon Edward

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014552	A1	20050217	WO 2004-EP8000	20040715
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,			

Updated Search

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SN, TD, TG

AU 2004263268	A1	20050217	AU 2004-263268	20040715
CA 2532452	A1	20050217	CA 2004-2532452	20040715
EP 1646613	A1	20060419	EP 2004-763307	20040715
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004012695	A	20061003	BR 2004-12695	20040715
CN 1852896	A	20061025	CN 2004-80027057	20040715
JP 2006528146	T	20061214	JP 2006-520756	20040715
EP 1876174	A1	20080109	EP 2007-118193	20040715
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR, LT, LV				
IN 2006DN00211	A	20070817	IN 2006-DN211	20060112
US 2006229312	A1	20061012	US 2006-565066	20060117
US 7279481	B2	20071009		
MX 2006PA00716	A	20060330	MX 2006-PA716	20060118
NO 2006000774	A	20060406	NO 2006-774	20060217
US 2007167423	A1	20070719	US 2007-687098	20070316
PRIORITY APPLN. INFO.:			GB 2003-16915	A 20030718
			EP 2004-763307	A3 20040715
			WO 2004-EP8000	W 20040715
			US 2006-565066	A1 20060117

OTHER SOURCE(S): CASREACT 142:240449; MARPAT 142:240449

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein R1 = halo, CN, halo/alkyl, halo/alkoxy; m = 0-4; X = N, CH; R2 = halo, CN, halo/alkyl, halo/alkoxy; n = 0-2; A = [W]p; W = CH2, -CH(alkyl)-, -C(alkyl)(alkyl)-; p = 0-3; Y and Z form together a cycloalkylene group; or Y = CH2, -CH(alkyl)-, -C(alkyl)(alkyl)-; and Z = CH2, CHOH, CHR6, CR6R7; R6, R7 = independently halo, CN, alkyl, alkoxy; R3, R4 = independently H, alkyl, alkylsulfonyl, etc.; or NR3R4 = (un)substituted 3-7-membered monocyclic heterocyclic group or 8-11-membered bicyclic heterocyclic group; R5 = independently halo, CN, alkyl, alkoxy; q = 0-4; and their pharmaceutically acceptable salts] were prepared as ligands for 5-HT1 receptors and/or inhibitors of serotonin reuptake. For instance, II was prepared by acylation of 3-[2-[4-(2-methyl-5-quinolinyl)-1-piperazinyl]ethyl]aniline (preparation given) with propanoyl chloride. Selected I showed high affinity for 5-HT1A, 5-HT1B, and 5-HT1D with pKi values in the range 8.0-10.0 in a radioligand assay. Certain I appear to be 5-HT1 antagonists, while others appear to be inverse agonists, agonists, or partial agonists using the [35S]GTPγS functional assay (no data). Selected I displayed potency at the uptake site of pIC50 > 6.0. Thus, I are useful for treating CNS disorders, in particular serotonin-related disorders such as depression and anxiety, are also disclosed.

IT 844903-46-4P, 1-[3-[2-[4-(2-Methyl-5-quinolinyl)-1-piperazinyl]ethyl]phenyl]-3-phenyl-2-imidazolidinone dihydrochloride

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(5-HT1 ligand; preparation of quinolines and quinazolines as ligands for

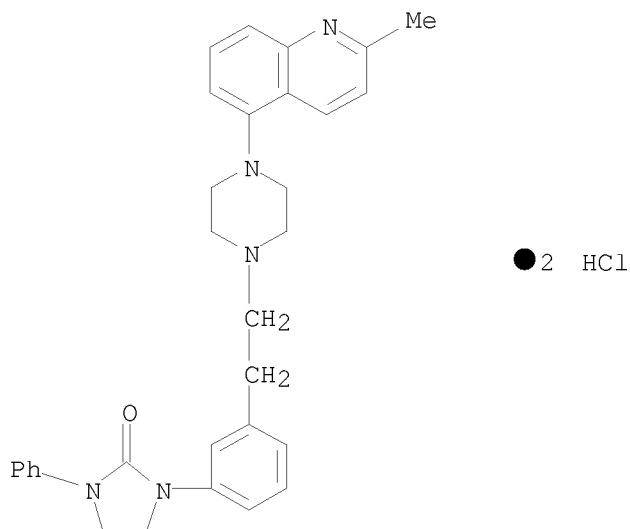
Updated Search

10501317

5-HT1 receptors and their use in treatment of CNS and other  
serotonin-related disorders)

RN 844903-46-4 HCAPLUS

CN 2-Imidazolidinone, 1-[3-[2-[4-(2-methyl-5-quinolinyl)-1-  
piperazinyl]ethyl]phenyl]-3-phenyl-, dihydrochloride (9CI) (CA INDEX  
NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 51 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:127612 HCAPLUS

DOCUMENT NUMBER: 142:355209

TITLE: Synthesis of 1,3,5-trisubstituted hydantoins by  
regiospecific domino condensation/aza-  
Michael/O→N acyl migration of Carbodiimides  
with Activated  $\alpha,\beta$ -Unsaturated Carboxylic  
Acids

AUTHOR(S): Volonterio, Alessandro; de Arellano, Carmen Ramirez;  
Zanda, Matteo

CORPORATE SOURCE: Dipartimento di Chimica Materiali ed Ingegneria  
Chimica "G. Natta" del Politecnico di Milano,  
C.N.R.-Istituto di Chimica del Riconoscimento  
Molecolare, Milan, I-20131, Italy

SOURCE: Journal of Organic Chemistry (2005), 70(6), 2161-2170  
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

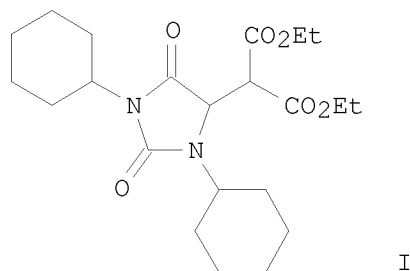
LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:355209

GI

Updated Search

10501317



AB Carbodiimides and suitably activated  $\alpha,\beta$ -unsatd. carboxylic acids reacted effectively to afford a vast array of 1,3,5-trisubstituted hydantoins, e.g., I, by means of a regiospecific domino condensation/aza-Michael/N $\rightarrow$ O acyl migration. The reaction worked well in very mild conditions with fumaric acid derivs. bearing an electron-withdrawing group in the  $\beta$  position. Good results have been obtained also with less activated substrates bearing only one electron-withdrawing group in the  $\beta$  position, using more polar solvents and in the presence of a base. Reactions with unsym. carbodiimides were generally highly chemo- and regioselective, giving rise to the formation of a single regioisomeric hydantoin. However, unsym. carbodiimides bearing one alkyl group and one aryl group can produce variable amts. of N-acylurea byproducts. The latter could be easily recovered and transformed into the corresponding hydantoins. A detailed study of the influence of key reaction parameters such as solvent, base, and structure of the reactants on the reaction outcome and mechanism is presented. This methodol. is particularly convenient for the synthesis of trifluoromethyl-substituted hydantoins, which could be interesting as bioactive compds. in medicinal chemical, as well as precursors of the corresponding  $\alpha$ -amino acids.

IT 639517-70-7P

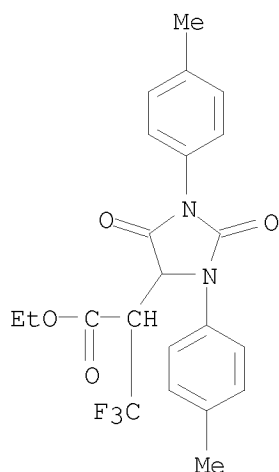
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of hydantoins via domino condensation/aza-Michael addition/O-N acyl migration of  $\alpha,\beta$ -unsatd. acids with carbodiimides)

RN 639517-70-7 HCAPLUS

CN 4-Imidazolidineacetic acid, 1,3-bis(4-methylphenyl)-2,5-dioxo- $\alpha$ -(trifluoromethyl)-, ethyl ester (CA INDEX NAME)

10501317



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 52 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:14169 HCAPLUS

DOCUMENT NUMBER: 142:114470

TITLE: Preparation of sulfonylated peptide derivatives for treating rheumatoid arthritis

INVENTOR(S): Yednock, Theodore A.; Freedman, Stephen B.; Lieberburg, Ivan; Pleiss, Michael A.; Konradi, Andrei W.; Shopp, George; Messersmith, Elizabeth

PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 736 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000246	A2	20050106	WO 2004-US20280	20040625
WO 2005000246	A3	20051124		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004251754	A2	20050106	AU 2004-251754	20040625
AU 2004251754	A1	20050106		
CA 2529873	A1	20050106	CA 2004-2529873	20040625

Updated Search

10501317

US 2005065192	A1	20050324	US 2004-875282	20040625
US 2005074451	A1	20050407	US 2004-875469	20040625
EP 1635822	A2	20060322	EP 2004-777033	20040625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2007526230	T	20070913	JP 2006-517618	20040625
PRIORITY APPLN. INFO.:			US 2003-482211P	P 20030625
			WO 2004-US20280	W 20040625

OTHER SOURCE(S): MARPAT 142:114470

AB The invention relates to methods and compns. for treating rheumatoid arthritis by administering a combination therapy comprising methotrexate and an antibody to  $\alpha 4$  integrin or an immunol. active antigen binding fragment in therapeutically effective amts. Compds. R1SO2NR2CHR3-Q-CHR5CO2H [R1 is (un)substituted alkyl, aryl, cycloalkyl, heterocyclyl or heteroaryl; R2 is H, (un)substituted cycloalkenyl or any group given for R1; R3 is H or any group given for R1; R2 can combine with R1 or R3 to form an (un)substituted heterocyclic group; R5 is -(CH2)1-4-Ar-R5', where R5' is -O-Z-NR8R8' or -O-Z-R8'', Ar is (un)substituted aryl or heteroaryl, Z is CO or SO2, R8, R8' are H, (un)substituted alkyl, cycloalkyl or heterocyclyl or NR8R8' is (un)substituted heterocyclyl, and R8'' is (un)substituted heterocyclyl; Q is -C(X)NR7-, where R7 is H or alkyl and X is O or S] are claimed for use in combination therapy. Thus, N-tosyl-L-prolyl-4-(dimethylcarbamoyloxy)-L-phenylalanine Et ester was prepared by acylation of Ts-Pro-Tyr-OEt with dimethylcarbamoyl chloride. Compds. of the invention have binding affinity to  $\alpha 4\beta 1$  (IC50  $\leq 15 \mu\text{M}$ ).

IT 220303-56-0P

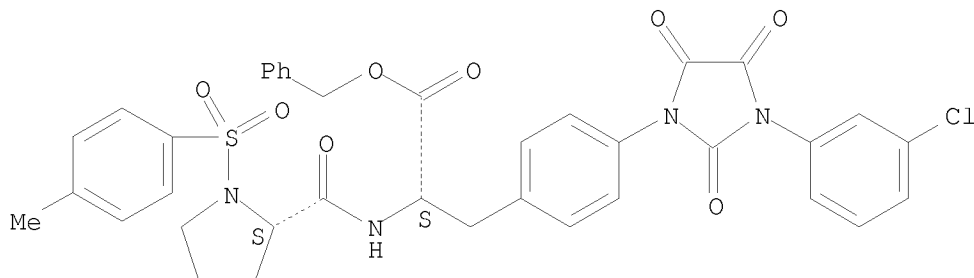
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonylated peptide derivs. for treating rheumatoid arthritis)

RN 220303-56-0 HCAPLUS

CN L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-[3-(3-chlorophenyl)-2,4,5-trioxo-1-imidazolidinyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 53 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:14167 HCAPLUS

DOCUMENT NUMBER: 142:114469

TITLE: Preparation of sulfonylated peptide derivatives for

Updated Search

10501317

INVENTOR(S): treating rheumatoid arthritis  
Yednock, Theodore A.; Freedman, Stephen B.;  
Lieberburg, Ivan; Pleiss, Michael A.; Konradi, Andrei  
W.; Shopp, George; Messersmith, Elizabeth  
PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., USA  
SOURCE: PCT Int. Appl., 647 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000244	A2	20050106	WO 2004-US20240	20040625
WO 2005000244	A3	20050929		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004251750	A2	20050106	AU 2004-251750	20040625
AU 2004251750	A1	20050106		
CA 2528723	A1	20050106	CA 2004-2528723	20040625
US 2005065192	A1	20050324	US 2004-875282	20040625
US 2005074451	A1	20050407	US 2004-875469	20040625
EP 1635871	A2	20060322	EP 2004-777008	20040625
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR			
JP 2007524626	T	20070830	JP 2006-517610	20040625
PRIORITY APPLN. INFO.:			US 2003-482211P	P 20030625
			WO 2004-US20240	W 20040625

AB The invention relates to methods and compns. for treating rheumatoid arthritis by administering a combination therapy comprising methotrexate and an antibody to  $\alpha 4$  integrin or an immunol. active antigen binding fragment in therapeutically effective amts. Compds. include those described by formula R1SO2NR2CHR3-Q-CHR5CO2H [R1 is (un)substituted alkyl, aryl, cycloalkyl, heterocyclyl or heteroaryl; R2 is H, (un)substituted cycloalkenyl or any group given for R1; R3 is H or any group given for R1; R2 can combine with R1 or R3 to form an (un)substituted heterocyclic group; R5 is -(CH2)1-4-Ar-R5', where R5' is -O-Z-NR8R8' or -O-Z-R8'', Ar is (un)substituted aryl or heteroaryl, Z is CO or SO2, R8, R8' are H, (un)substituted alkyl, cycloalkyl or heterocyclyl or NR8R8' is (un)substituted heterocyclyl, and R8'' is (un)substituted heterocyclyl; Q is -C(X)NR7-, where R7 is H or alkyl and X is O or S]. Thus, N-tosyl-L-prolyl-4-(dimethylcarbamoyloxy)-L-phenylalanine Et ester was prepared by acylation of Ts-Pro-Tyr-OEt with dimethylcarbamoyl chloride. Compds. of the invention have binding affinity to  $\alpha 4\beta 1$  (IC50  $\leq 15 \mu\text{M}$ ).

IT 220303-56-0P



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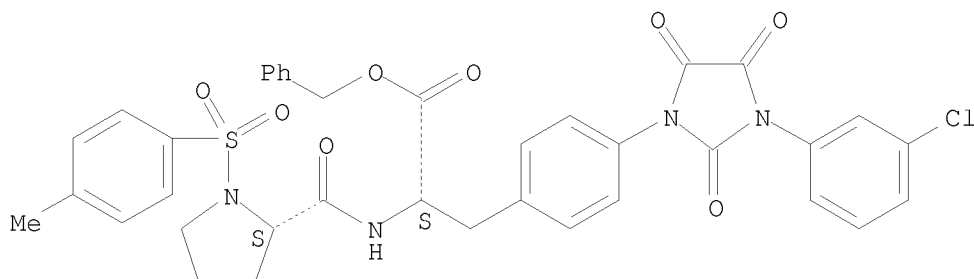
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonylated peptide derivs. for treating rheumatoid arthritis)

RN 220303-56-0 HCAPLUS

CN L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-[3-(3-chlorophenyl)-2,4,5-trioxo-1-imidazolidinyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 54 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:878167 HCAPLUS

DOCUMENT NUMBER: 141:366227

TITLE: Preparation of imidazolidin-2-one and oxazolidin-2-one derivatives as glucagon receptor antagonists/inverse agonists

INVENTOR(S): Kurukulasuriya, Ravi; Link, James T.; Patel, Jyoti R.; Sorensen, Bryan K.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 24 pp.

CODEN: USXXCO

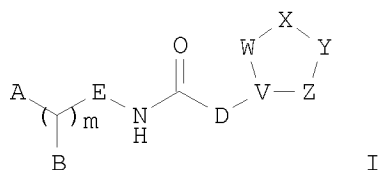
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

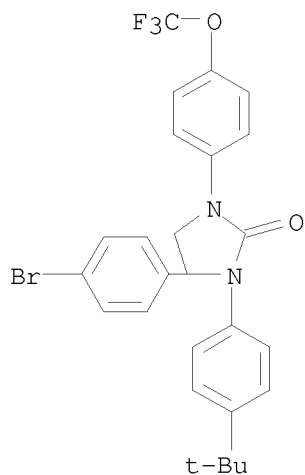
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004209928	A1	20041021	US 2003-743954	20031223
PRIORITY APPLN. INFO.:			US 2002-437132P	P 20021230
OTHER SOURCE(S):	MARPAT	141:366227		
GI				



Updated Search

- AB Compds. of formula (I) or pharmaceutically suitable salts, esters or prodrugs thereof, [wherein A = CO<sub>2</sub>H, tetrazole; B = H, F, OH, alkoxy, NRaRb (wherein Ra, Rb = H, alkyl, alkylcarbonyl, alkylsulfonyl, alkoxyalkyl, cycloalkyl, cycloalkylcarbonyl, cycloalkylsulfonyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylcarbonyl, heterocyclesulfonyl); D = aryl, heteroaryl; E = (CH<sub>2</sub>)<sub>n</sub>; m, n = 0, 1, 2; V = C(Rc), N (wherein Rc = H, alkyl, alkoxy, alkoxyalkyl, cycloalkyl, cycloalkyloxy, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl); W = C(RdRe), (Rd)N, O, S, S(O), S(O)<sub>2</sub>; X = C(O), C(O)C(RfRg), C(RfRg)C(O), C(S), C(RfRg), C(RfRg)C(RiRj), C:N(Rj), S(O), S(O)<sub>2</sub>; Y = C(RkRm), (Rk)N, O, S, S(O), S(O)<sub>2</sub>; Z = a bond, C(RpRq), C(RpRq)C(RsRt); Rd, Re, Rf, Rg, Ri, Rj, Rk, Rm, Rp, Rq, Rs, Rt = H, alkyl, alkoxy, alkoxyalkyl, aryl, arylalkyl, aryloxy, arylalkoxy, cycloalkyl, cycloalkylalkyl, cycloalkyloxy, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclyoxy, heterocyclylalkoxy] are prepared These compds. are novel glucagon receptor antagonists or inverse agonists and are useful for treating (1) type 2 diabetes in a mammal, (2) symptoms related to type 1 or type 2 diabetes in a mammal wherein said symptoms are selected from the group consisting of hyperglycemia, hyperinsulinemia, inadequate glucose clearance, obesity, hyperlipidemia, lipid metabolism disorders and hypertension, and (3) diabetes or syndrome X in a mammal. Thus, 3-[4-[1-(4-tert-butylcyclohexylamino)-2-(tert-butyltrimethylsilyloxy)ethyl]benzoylamino]propionic acid Et ester underwent addition reaction with 4-(trifluoromethoxy)phenyl isocyanate in THF at ambient temperature for 12 h to give 3-[4-[1-[N-(4-tert-butylcyclohexyl)-N'-(4-trifluoromethoxyphenyl)ureido]-2-(tert-butyltrimethylsilyloxy)ethyl]benzoylamino]propionic acid Et ester (II). Desilylation of II with Bu<sub>4</sub>NF in THF at 0° for 30 min gave 3-[4-[1-[N-(4-tert-butylcyclohexyl)-N'-(4-trifluoromethoxyphenyl)ureido]-2-hydroxyethyl]benzoylamino]propionic acid Et ester which was cyclized by treatment with polymer supported triphenylphosphine (0.146 g, 0.44 mmol) followed by di-Et azodicarboxylate, saponification with NaOH in aqueous MeOH, and acidification with 1 N aqueous HCl to give N-[4-[3-(4-tert-butylcyclohexyl)-2-oxo-1-[4-(trifluoromethoxy)phenyl]imidazolidin-4-yl]benzoyl]-β-alanine. The compds. I were found to inhibit glucagon-stimulated cAMP production at a concentration of 20 μM a range of about 50 to .apprx.100%.
- IT 777863-79-3P, 4-(4-Bromophenyl)-3-(4-tert-butylphenyl)-1-(4-trifluoromethoxyphenyl)imidazolidin-2-one  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of imidazolidin-2-one and oxazolidin-2-one derivs. as glucagon receptor antagonists/inverse agonists for treating type II diabetes or symptoms related to type 1 or 2 diabetes)
- RN 777863-79-3 HCAPLUS
- CN 2-Imidazolidinone, 4-(4-bromophenyl)-3-[4-(1,1-dimethylethyl)phenyl]-1-[4-(trifluoromethoxy)phenyl]- (CA INDEX NAME)

10501317



L4 ANSWER 55 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:822976 HCAPLUS

DOCUMENT NUMBER: 141:317249

TITLE: Solid polymer electrolyte and proton conducting membrane

INVENTOR(S): Kanaoka, Nagayuki; Iguchi, Masaru; Mitsuta, Naoki; Sohma, Hiroshi; Ohtsuki, Toshihiro

PATENT ASSIGNEE(S): Honda Motor Co., Ltd., Japan; JSR Corporation

SOURCE: Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1465277	A1	20041006	EP 2004-6601	20040318
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2004285116	A	20041014	JP 2003-76192	20030319
JP 2004285117	A	20041014	JP 2003-76193	20030319
JP 2004285118	A	20041014	JP 2003-76194	20030319
JP 3816061	B2	20060830		
JP 2004285283	A	20041014	JP 2003-81768	20030325
US 2004214065	A1	20041028	US 2004-804228	20040319
US 7030206	B2	20060418		

PRIORITY APPLN. INFO.:

JP 2003-76192	A	20030319
JP 2003-76193	A	20030319
JP 2003-76194	A	20030319
JP 2003-81768	A	20030325

AB The invention aims to provide a sulfonic acid group-containing polymer having improved hot water resistance and radical resistance (durability), a solid polymer electrolyte including the polymer, and a proton-conducting membrane including the electrolyte, the polymer electrolyte includes a sulfonated product of a polymer shown by the following general formula

Updated Search

10501317

[X]a[Y]b[Z]c wherein X, Y, and Z are bonded randomly, alternately, or in blocks, b represents an integer of two or more, and each of a and c represents an integer of zero or more, where a + c > 2.

IT 768370-50-9DP, sulfonated

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(solid polymer electrolyte and proton conducting membrane)

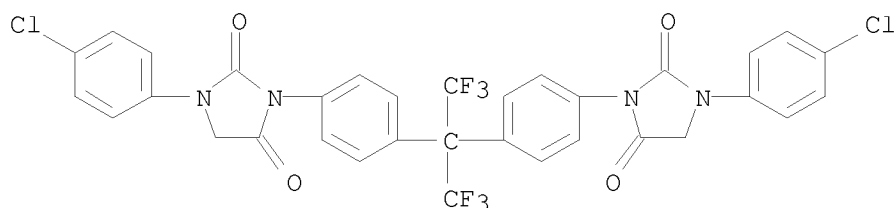
RN 768370-50-9 HCAPLUS

CN 2,4-Imidazolidinedione, 3,3'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[1-(4-chlorophenyl)-, polymer with (2,5-dichlorophenyl)[4-(4-phenoxyphenoxy)phenyl]methanone (9CI) (CA INDEX NAME)

CM 1

CRN 768370-49-6

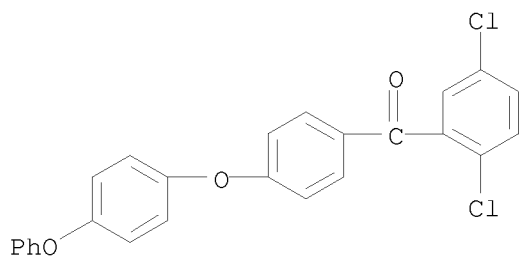
CMF C33 H20 Cl2 F6 N4 O4



CM 2

CRN 463954-50-9

CMF C25 H16 Cl2 O3



L4 ANSWER 56 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:767279 HCAPLUS

DOCUMENT NUMBER: 141:405643

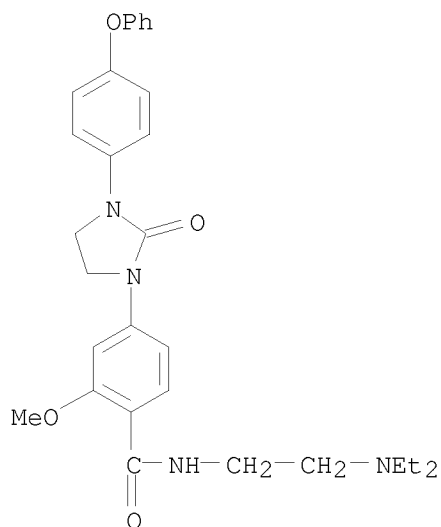
TITLE: 4-Acylamino-and 4-ureidobenzamides as melanin-concentrating hormone (MCH) receptor 1 antagonists

AUTHOR(S): Receveur, Jean-Marie; Bjurling, Emelie; Ulven, Trond; Little, Paul Brian; Norregaard, Pia K.; Hoegberg, Thomas

Updated Search

10501317

CORPORATE SOURCE: 7TM Pharma A/S, Horsholm, DK-2970, Den.  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2004),  
14(20), 5075-5080  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 141:405643  
AB Synthesis, in vitro biol. evaluation and structure-activity relationships  
of 4-acylamino-and 4-ureidobenzamides as novel hMCH1R-antagonists are  
disclosed. The nature of the amine side chains could be varied  
considerably in contrast to the central benzamide scaffold and aromatic  
substituents.  
IT 617246-13-6  
RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological  
study)  
(4-Acylamino-and 4-ureidobenzamides as melanin-concentrating hormone (MCH)  
receptor 1 antagonists)  
RN 617246-13-6 HCAPLUS  
CN Benzamide, N-[2-(diethylamino)ethyl]-2-methoxy-4-[2-oxo-3-(4-  
phenoxyphenyl)-1-imidazolidinyl]- (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 57 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:648332 HCAPLUS  
DOCUMENT NUMBER: 141:191071  
TITLE: Preparation of sulfonyl dipeptides for treatment of  
demyelinating diseases and paralysis  
INVENTOR(S): Karlik, Steve J.; Pleiss, Michael A.; Konradi, Andrei  
W.; Grant, Francine S.; Semko, Christopher M.;  
Dressen, Daren; Messersmith, Elizabeth; Freedman,  
Stephen; Yednock, Ted  
PATENT ASSIGNEE(S): Elan Pharmaceuticals Inc., USA

Updated Search

10501317

SOURCE: PCT Int. Appl., 495 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004066932	A2	20040812	WO 2004-US2039	20040126
WO 2004066932	A3	20060601		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
AU 2004207536	A1	20040812	AU 2004-207536	20040126
CA 2514125	A1	20040812	CA 2004-2514125	20040126
US 2005069541	A1	20050331	US 2004-763424	20040126
US 2005215565	A1	20050929	US 2004-763539	20040126
EP 1592387	A2	20051109	EP 2004-705270	20040126
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1942161	A	20070404	CN 2004-80008089	20040126
JP 2007521249	T	20070802	JP 2006-503001	20040126
MX 2005PA07843	A	20051018	MX 2005-PA7843	20050722
NO 2005003920	A	20051024	NO 2005-3920	20050823
IN 2005CN01994	A	20070302	IN 2005-CN1994	20050823
PRIORITY APPLN. INFO.:			US 2003-442171P	P 20030124
			US 2003-500316P	P 20030905
			WO 2004-US2039	W 20040126

AB The application provides for methods and compns. for inhibiting demyelination, promoting remyelination and/or treating paralysis. Preferably, the compns. include Igs (e.g., antibodies, antibody fragments, and recombinantly produced antibodies or fragments), polypeptides (e.g., soluble forms of the ligand proteins for integrins) and small mols., which when administered in an effective amount inhibit demyelination and/or promote remyelination. The compns. can also utilize other anti-inflammatory agents used to palliate conditions and diseases associated with demyelination. Compds. of the invention include sulfonyl dipeptides R1SO2NR2CHR3-Q-CHR5CO2H [R1 is (un)substituted alkyl, aryl, cycloalkyl, heterocyclyl or heteroaryl; R2 is H, (un)substituted cycloalkenyl or any group given for R1; R3 is H or any group given for R1; R1 and R2 or R2 and R3 can form an (un)substituted heterocyclic group; R5 is -(CH2)0-4-Ar-R5', where R5' is -O-Z-NR8R8' or -O-Z-R8'' [R8, R8'' are H, (un)substituted alkyl, cycloalkyl or heterocyclyl or form a heterocycle, R8'' is (un)substituted heterocyclyl, Z is CO or SO2 and Ar is (un)substituted aryl or heteroaryl]; Q is C(X)NR7, where R7 is H or alkyl and X is O or S] or their pharmaceutically-acceptable salts. The examples describe synthetic data and specific compds. of the invention (approx. 300) which were prepared Thus, claimed compound N-[N-(3-pyridinesulfonyl)-L-3,3-dimethyl-

10501317

4-thiaprolyl]-O-[1-methylpiperazin-4-ylcarbonyl]-L-tyrosine iso-Pr ester was prepared by a peptide coupling/sulfonylation/acylation scheme and assayed for biol. activity, e.g., reversal of prolonged chronic exptl. autoimmune encephalomyelitis.

IT 220303-56-0P

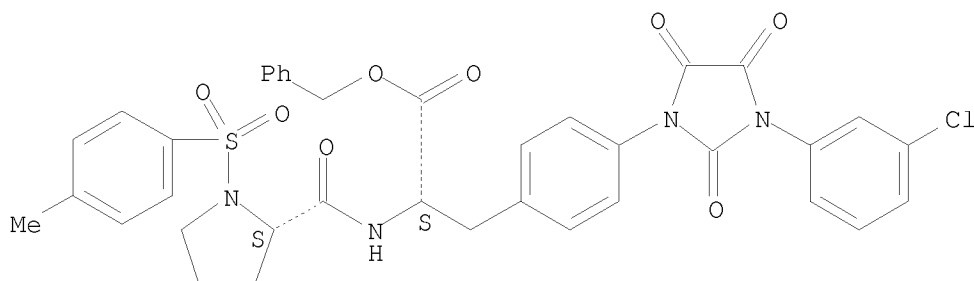
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonyl dipeptides for treatment of demyelinating diseases and paralysis)

RN 220303-56-0 HCAPLUS

CN L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-[3-(3-chlorophenyl)-2,4,5-trioxo-1-imidazolidinyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 58 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:648331 HCAPLUS

DOCUMENT NUMBER: 141:191070

TITLE: Preparation of sulfonyl dipeptides for treatment of demyelinating diseases and paralysis

INVENTOR(S): Karlik, Steve J.; Pleiss, Michael A.; Konradi, Andrei W.; Grant, Francine S.; Semko, Christopher M.; Dressen, Daren; Messersmith, Elizabeth; Freedman, Stephen; Yednock, Ted

PATENT ASSIGNEE(S): Elan Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 573 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004066931	A2	20040812	WO 2004-US2028	20040126
WO 2004066931	A3	20051215		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,

Updated Search

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004207535	A1	20040812	AU 2004-207535	20040126
CA 2514117	A1	20040812	CA 2004-2514117	20040126
US 2005069541	A1	20050331	US 2004-763424	20040126
US 2005215565	A1	20050929	US 2004-763539	20040126
EP 1592386	A2	20051109	EP 2004-705266	20040126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006516624	T	20060706	JP 2006-502997	20040126
MX 2005PA07823	A	20051018	MX 2005-PA7823	20050722
PRIORITY APPLN. INFO.:			US 2003-442171P	P 20030124
			US 2003-500316P	P 20030905
			WO 2004-US2028	W 20040126

OTHER SOURCE(S): MARPAT 141:191070

AB The application provides for methods and compns. for inhibiting demyelination, promoting remyelination and/or treating paralysis. Preferably, the compns. include Igs (e.g., antibodies, antibody fragments, and recombinantly produced antibodies or fragments), polypeptides (e.g., soluble forms of the ligand proteins for integrins) and small mols., which when administered in an effective amount inhibit demyelination and/or promote remyelination. The compns. can also utilize other anti-inflammatory agents used to palliate conditions and diseases associated with demyelination. The claims describe sulfonyl dipeptides R1SO2NR2CHR3-Q-CHR5CO2H [R1 is (un)substituted alkyl, aryl, cycloalkyl, heterocyclyl or heteroaryl; R2 is H, (un)substituted cycloalkenyl or any group given for R1; R3 is H or any group given for R1; or R1 and R2 or R2 and R3 can form an (un)substituted heterocyclic group; R5 is -(CH2)0-4-Ar-R5', where R5' is -O-Z-NR8R8' or -O-Z-R8'' [R8, R8'' are H, r3 is (un)substituted alkyl, cycloalkyl or heterocyclyl or form a heterocycle, R8'' is (un)substituted heterocyclyl, Z is CO or SO2 and Ar is (un)substituted aryl or heteroaryl]; Q is C(X)NR7, where R7 is H or alkyl and X is O or S] or their pharmaceutically-acceptable salts for treating demyelinating diseases. The examples describe synthetic data and specific compds. of the invention (approx. 300) which were prepared Thus, claimed compound N-[N-(3-pyridinesulfonyl)-L-3,3-dimethyl-4-thiaprolyl]-O-[1-methylpiperazin-4-ylcarbonyl]-L-tyrosine iso-Pr ester was prepared by a peptide coupling/sulfonylation/acylation scheme and assayed for biol. activity, e.g., reversal of prolonged chronic exptl. autoimmune encephalomyelitis.

IT 220303-56-0P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of sulfonyl dipeptides for treatment of demyelinating diseases and paralysis)

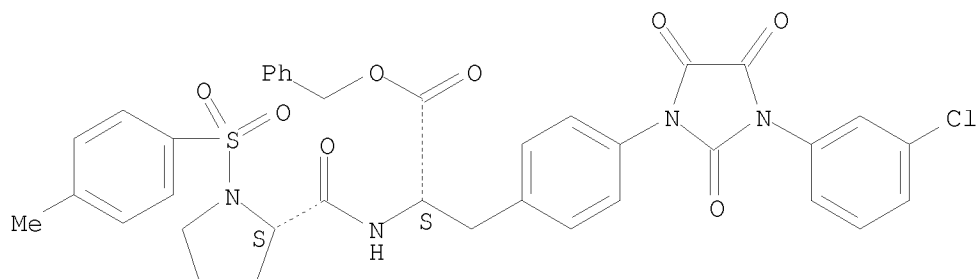
RN 220303-56-0 HCAPLUS

CN L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-[3-(3-chlorophenyl)-2,4,5-trioxo-1-imidazolidinyl]-, phenylmethyl ester (9CI)  
 (CA INDEX NAME)

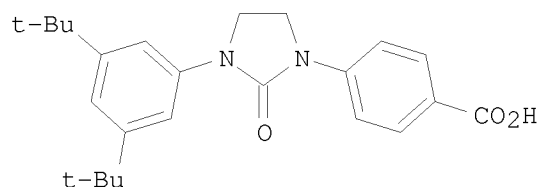
Absolute stereochemistry.



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L4 ANSWER 59 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:581017 HCAPLUS  
DOCUMENT NUMBER: 141:260688  
TITLE: Design and synthesis of cyclic urea compounds: a pharmacological study for retinoidal activity  
AUTHOR(S): Kurihara, Masaaki; Rouf, Abu Shara Shamsur; Kansui, Hisao; Kagechika, Hiroyuki; Okuda, Haruhiro; Miyata, Naoki  
CORPORATE SOURCE: Division of Organic Chemistry, National Institute of Health Sciences, Kamiyoga, Setagaya-ku, Tokyo, 158-8501, Japan  
SOURCE: Bioorganic & Medicinal Chemistry Letters (2004), 14(16), 4131-4134  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 141:260688  
GI



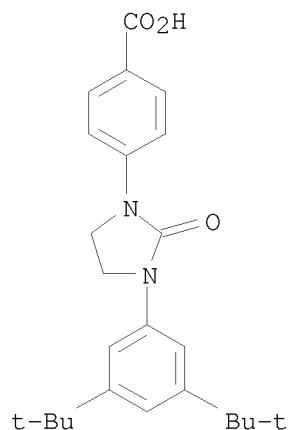
I

AB Retinoids are natural and synthetic analogs of all-trans retinoic acid (ATRA). Cancer and other serious hyperproliferative diseases are attractive therapeutic targets for retinoids. Here the design and synthesis of novel cyclic urea compds. with retinoidal activity is reported. One example (I) exhibited potent differentiation-inducing ability toward human promyelocytic leukemia HL-60 cells at the concentration of  $10^{-9}$  M: its potency was almost equal to that of the native ligand, all-trans retinoic acid.  
IT 753491-70-2D, bound to RAR $\gamma$   
RL: PRP (Properties)  
(docking model of cyclic urea compds. bound to RAR $\gamma$ )  
RN 753491-70-2 HCAPLUS

Updated Search

10501317

CN Benzoic acid, 4-[3-[3,5-bis(1,1-dimethylethyl)phenyl]-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 60 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:514887 HCAPLUS

DOCUMENT NUMBER: 141:395473

TITLE: Utility of N-[4-(N-substituted sulfamoyl)phenyl] cyanothioformamides in the synthesis of heterocyclic compounds

AUTHOR(S): El-Gaby, Mohamed S. A.; El-Sharief, Ahmed M. Sh.; Atalla, Ahmed A.; El-Adasy, Abu-Bakr A. A. M.

CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar University at Assiut, Assiut, 71524, Egypt

SOURCE: Journal of the Chinese Chemical Society (Taipei, Taiwan) (2004), 51(2), 327-333  
CODEN: JCCTAC; ISSN: 0009-4536

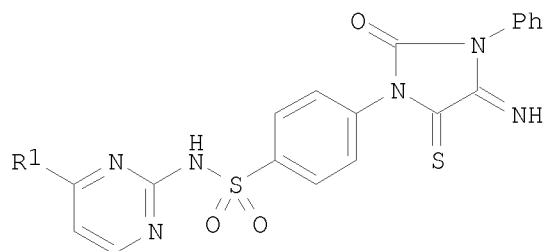
PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:395473

GI



I

Updated Search

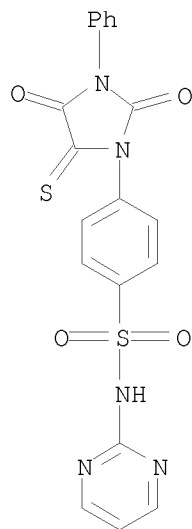
10501317

AB Novel cyanothioformamides, RNHSO<sub>2</sub>-4-C<sub>6</sub>H<sub>4</sub>NHC(S)CN I (R = H, 2-pyrimidinyl, 4-methyl-2-pyrimidinyl, 2-thiazolyl), were prepared by treatment of the corresponding isothiocyanatosulfonamides, RNHSO<sub>2</sub>-4-C<sub>6</sub>H<sub>4</sub>NCS, with potassium cyanide at room temperature. Cyclocondensation of cyanothioformamides I (R = 2-pyrimidinyl, 4-methyl-2-pyrimidinyl) with PhNCO furnished the corresponding imidazolidines II (R<sub>1</sub> = H, Me, resp.). A number of similar cyclocondensation reactions were studied. Structures of the synthesized compds. were established by elemental anal. and spectral data.

IT 790711-14-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of heterocyclic compds. via cyclocondensation reactions of N-[4-(N-substituted-sulfamoyl)phenyl]cyanothioformamides)

RN 790711-14-7 HCAPLUS

CN Benzenesulfonamide, 4-(2,4-dioxo-3-phenyl-5-thioxo-1-imidazolidinyl)-N-2-pyrimidinyl- (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 61 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:496559 HCAPLUS

DOCUMENT NUMBER: 142:148130

TITLE: Synthesis and screening of cyclooxygenase activity of hydantoin and 2-thiohydantoin derivatives

AUTHOR(S): Shin, Hea Soon; Choi, Hee Jeon; Kwon, Soon Kyoung

CORPORATE SOURCE: College of Pharmacy, Duksung Women's University, Seoul, 132-714, S. Korea

SOURCE: Yakhak Hoechi (2004), 48(2), 141-146

CODEN: YAHOA3; ISSN: 0513-4234

PUBLISHER: Pharmaceutical Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB Selective COX-2 inhibitors were expected to retain anti-inflammatory activity by inhibition of prostaglandin production with reduction of gastric and

Updated Search

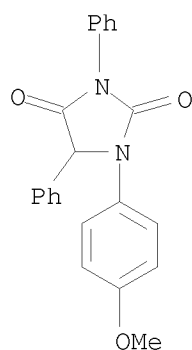
10501317

renal side effect associated with non-steroidal anti-inflammatory drugs. This study reported the syntheses of novel 2-thiohydantoin and hydantoin derivs. which have the structure of 5-membered heterocyclic ring substituted with two aryl groups, Ph group at 5-position and p-sulfamylphenyl or p-methoxyphenyl group at 1-position. These synthetic compds. showed significant COX-2 activities in vitro screening. Among them, 5-phenyl-2-thiohydantoin and hydantoin substituted with benzyl group at 3-position, could be considered as lead compds. with IC50=1.3.13.apprx.18.78 µg/mL for the development of COX-2 inhibitors.

IT 80858-35-1P, 3-Phenyl 1-(p-methoxyphenyl)-5-phenylhydantoin  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(synthesis and screening of cyclooxygenase activity of hydantoin and 2-thiohydantoin derivs.)

RN 80858-35-1 HCAPLUS

CN 2,4-Imidazolidinedione, 1-(4-methoxyphenyl)-3,5-diphenyl- (CA INDEX NAME)



L4 ANSWER 62 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:430626 HCAPLUS

DOCUMENT NUMBER: 141:7113

TITLE: Preparation of novel heterocyclic compounds having antibacterial activity

INVENTOR(S): Selvakumar, Natesan; Das, Jagattaran; Trehan, Sanjay; Iqbal, Javed; Kumar, Magadi Sitaram; Rajagopalan, Ramanujam; Rao, Mamidi Naga Venkata Srinivasa  
PATENT ASSIGNEE(S): Reddy's Laboratories Limited, India; Reddy's Laboratories Inc.

SOURCE: U.S. Pat. Appl. Publ., 100 pp., Cont.-in-part of U.S. Pat. Appl. 2003 65,175.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004102494	A1	20040527	US 2003-613414	20030703
US 7160912	B2	20070109		
IN 2000MA01124	A	20050304	IN 2000-MA1124	20001226

Updated Search

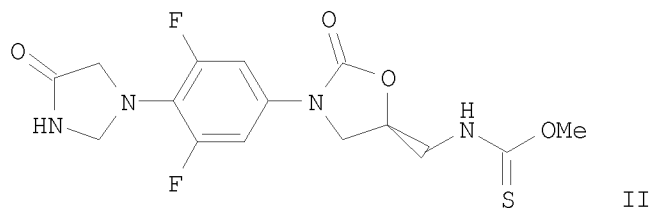
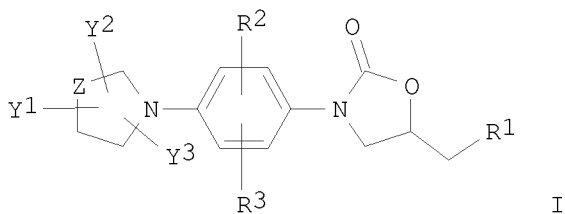
10501317

US 2003065175	A1	20030403	US 2001-32392	20011221
US 7030148	B2	20060418		
ZA 2003004945	A	20040927	ZA 2003-4945	20030625
US 2004059120	A1	20040325	US 2003-632950	20030801
US 7183301	B2	20070227		
US 2006293315	A1	20061228	US 2006-511756	20060829
US 2007004712	A1	20070104	US 2006-511799	20060829

PRIORITY APPLN. INFO.:

IN 2000-MA1124	A	20001226
IN 2001-MA15	A	20010104
US 2001-32392	A2	20011221
US 2003-613414	A1	20030703

OTHER SOURCE(S):                    MARPAT 141:7113  
GI



AB The title compds. [I; R1 = NHR4 (wherein R4 = thioacyl, C(S)cycloalkoxy, C(S)aryloxy, etc.); R2, R3 = H, halo, alkyl, etc.; Y1 = O, S; Y2, Y3 = H, halo, CN, etc.; Z = O, S, CH, CH2, (un)substituted NH], useful for inhibiting the growth of bacteria in a subject having a bacterial infection (MIC values given for some of the compds. I), were prepared E.g., a multi-step synthesis of II was given. The pharmaceutical composition comprising the compound I is claimed.

IT 439902-74-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel 4-(4-oxoimidazol-1-yl)phenyl substituted oxazolidinones having antibacterial activity)

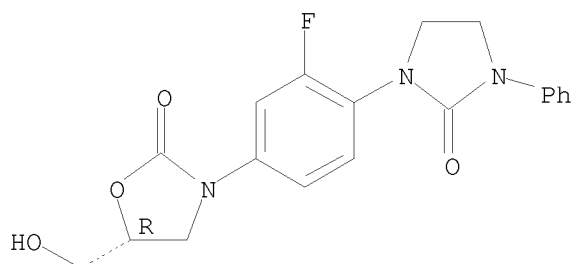
RN 439902-74-6 HCAPLUS

CN 2-Oxazolidinone, 3-[3-fluoro-4-(2-oxo-3-phenyl-1-imidazolidinyl)phenyl]-5-(hydroxymethyl)-, (5R)- (CA INDEX NAME)

Absolute stereochemistry.

Updated Search

10501317



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 63 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:390212 HCAPLUS

DOCUMENT NUMBER: 140:390281

TITLE: Urea variants as affinity ligands for IgG

INVENTOR(S): Axen, Andreas; Baumann, Herbert; Carredano, Enrique; Groenberg, Anna; Steensma, Elles

PATENT ASSIGNEE(S): Amersham Biosciences Ab, Swed.

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039765	A1	20040513	WO 2003-SE1434	20030912
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003259007	A1	20040525	AU 2003-259007	20030912
US 2006014735	A1	20060119	US 2005-531783	20050418
PRIORITY APPLN. INFO.:			SE 2002-3226	A 20021031
			SE 2002-3878	A 20021220
			WO 2003-SE1434	W 20030912

OTHER SOURCE(S): MARPAT 140:390281

AB The present invention relates to an IgG-binding compound, which more specifically has affinity for human IgGs of  $\kappa$ -type and functional derivs. thereof. More specifically, the compound according to the invention comprises an N,N-alkylated urea moiety located between an aromatic part and another part, which is a linear or cyclic substituted or unsubstituted aliphatic group. The compound binds to a pocket-shaped binding site present on all human IgG $\kappa$  Fabs, which site is located between the two domains (CH1 and CL) of its constant part. Accordingly, the compound according to the invention is a ligand for human IgGs of  $\kappa$ -type, and consequently,

Updated Search

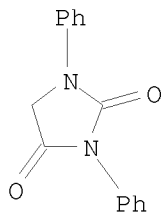
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the invention also relates to a separation matrix for affinity chromatog., which matrix comprises said compound, as well as to other uses of the compound

IT 3157-03-7  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(binding to human IgGκ by)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 64 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:123528 HCAPLUS

DOCUMENT NUMBER: 141:218418

TITLE: 4-thioxo-2-imidazolidinone derivatives as potential chemotherapeutic agents

AUTHOR(S): Sonbol, Ridha H.

CORPORATE SOURCE: Chemistry Department, Faculty of Science, King Abd-Alaziz University, Madina Monawarh, Saudi Arabia

SOURCE: Journal of Saudi Chemical Society (2003), 7(3), 315-326

CODEN: JSCSFO; ISSN: 1319-6103

PUBLISHER: Saudi Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 1,3-Diaryl-5-imino-4-thioxo-2-imidazolinones (IIa,b) were synthesized through interaction of cyanothioformamides (Ia,b) with aryl isocyanates. Hydrolysis of (IIb) with hydrochloric acid in boiling ethanol furnished 1-phenyl-3-(2'-anisyl)-2,5-dioxoimidazolidine-4-thione (IV). Compound (IIb) was reacted with excess H<sub>2</sub>S and triethylamine as a catalyst to give 1-(4'-Chlorophenyl)-3-phenyl-4-thiohydantion (VI). The later was condensed with pchlorobenzaldehyde to give the corresponding 5-arylidine derivative (VII). Compds. IV and VII were sent to National cancer Institute (NCI) (Bethesda, Maryland 20892. USA) for testing their activities against Cancer. Compound IV was inactive while compound VII was found to have better activities against Leukemia, non-Small cell Lung cancer, colon cancer, CNS cancer, Melanoma, Ovarian cancer, Renal cancer Prostate cancer and Breast cancer.

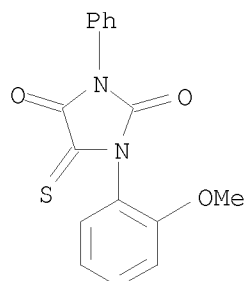
IT 252005-04-2P, NSC 719622

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(4-thioxo-2-imidazolidinone derivative NSC 719622 was found to be inactive against leukemia, non-small cell lung, colon, breast, melanoma,

10501317

prostate, ovarian, CNS and renal cancer in vitro)  
RN 252005-04-2 HCAPLUS  
CN 2,4-Imidazolidinedione, 1-(2-methoxyphenyl)-3-phenyl-5-thioxo- (CA INDEX  
NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 65 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:101141 HCAPLUS  
DOCUMENT NUMBER: 140:163866  
TITLE: Preparation of 1,3-dihydro-1,3-diphenyl-2H-imidazol-2-  
ones and related compounds as MCH receptor modulators  
for the treatment of obesity  
INVENTOR(S): Schwink, Lothar; Stengelin, Siegfried; Gossel,  
Matthias; Boehme, Thomas; Hessler, Gerhard; Rosse,  
Gerard; Walser, Armin  
PATENT ASSIGNEE(S): Aventis Pharma Deutschland G.m.b.H., Germany  
SOURCE: PCT Int. Appl., 113 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

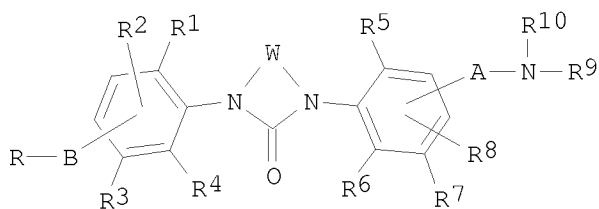
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011438	A1	20040205	WO 2003-EP7891	20030718
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10233817	A1	20040212	DE 2002-10233817	20020725
WO 2004012648	A2	20040212	WO 2003-EP7639	20030715
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,			

Updated Search

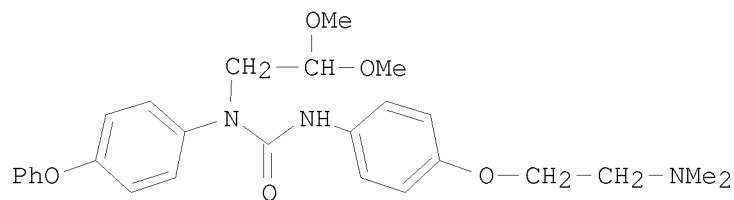


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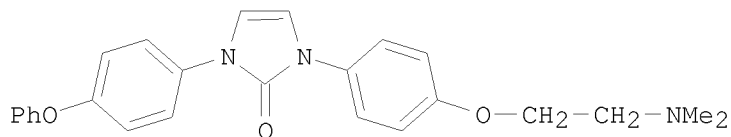
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,  
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
AU 2003257465 A1 20040223 AU 2003-257465 20030715  
CA 2493924 A1 20040205 CA 2003-2493924 20030718  
AU 2003251001 A1 20040216 AU 2003-251001 20030718  
BR 2003012916 A 20050614 BR 2003-12916 20030718  
EP 1551810 A1 20050713 EP 2003-771060 20030718  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
JP 2006501202 T 20060112 JP 2004-523753 20030718  
US 2004132752 A1 20040708 US 2003-626314 20030724  
US 7141561 B2 20061128  
MX 2005PA01048 A 20050408 MX 2005-PA1048 20050125  
PRIORITY APPLN. INFO.: DE 2002-10233817 A 20020725  
US 2002-428877P P 20021125  
WO 2003-EP7639 W 20030715  
WO 2003-EP7891 W 20030718  
OTHER SOURCE(S): MARPAT 140:163866  
GI



I



II



III

AB Title compds. I [R = alkyl, alkylaryl, cycloalkyl, etc.; A =

Updated Search

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(C(R42)(R43))m; m = 0-5; R42, R43 = H, alkyl, aryl; B = a bond or a link, i.e., S, SO, SO<sub>2</sub>, etc.; W = (CH<sub>2</sub>)<sub>n</sub>, CH=CH, CH=N, etc.; n = 2-5; R9, R10 = H, alkyl, alkoxyalkyl, etc.; R1, R2, R3, R4 = H, halo, OH, etc.; R5, R6, R7, R8 = H, halo, OH, etc.] and their pharmaceutically acceptable salts and formulations were prepared. For example, TFA catalyzed cyclization of di-Me acetal II, e.g., prepared from 4-phenoxyaniline in 2-steps, afforded diarylcyclic urea III. In milk consumption studies with female NMRI mice, cyclic urea III exhibited very good anorectic effects, i.e., 58% decrease in milk consumption vs control. Compds. I are claimed useful as antiobesity and antidiabetic agents.

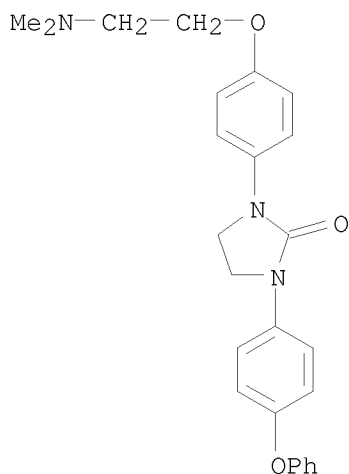
IT 654019-01-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of diarylcyclic ureas as MCH receptor modulators for the treatment of obesity)

RN 654019-01-9 HCAPLUS

CN 2-Imidazolidinone, 1-[4-[2-(dimethylamino)ethoxy]phenyl]-3-(4-phenoxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 66 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:80660 HCAPLUS

DOCUMENT NUMBER: 140:146137

TITLE: Preparation of (phenylureido)benzoic acid compounds for use in suppression of nonsense mRNA mutations and the treatment of genetic disease

INVENTOR(S): Wilde, Richard G.; Takasugi, James J.; Hwang, Seongwoo; Welch, Ellen M.; Chen, Guangming

PATENT ASSIGNEE(S): PTC Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 134 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

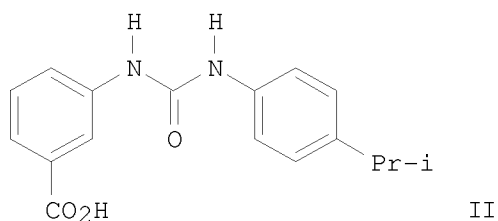
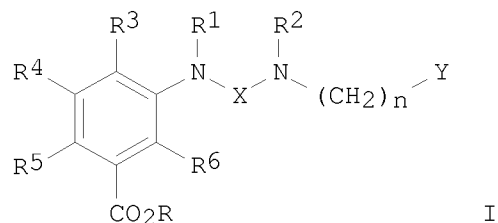
Updated Search

10501317

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004009558	A2	20040129	WO 2003-US23182	20030723
WO 2004009558	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493458	A1	20040129	CA 2003-2493458	20030723
AU 2003256755	A1	20040209	AU 2003-256755	20030723
EP 1542667	A2	20050622	EP 2003-766012	20030723
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-398333P	P 20020724
			WO 2003-US23182	W 20030723

OTHER SOURCE(S): MARPAT 140:146137  
GI



AB Title compds., including (oxoimidazolidinyl)benzoic acid derivs., I [wherein R = H or (un)substituted (cyclo)alkyl, heterocyclyl, (hetero)aryl, (hetero)arylalkyl, cycloalkylalkyl, heterocycloalkyl; R1, R2 = independently H or (un)substituted alkyl, alkenyl, alkyloxyalkyl, amide, sulfonyl, or together form 5-7 membered (un)substituted heterocyclic ring or heteroaryl ring, etc.; R3-R6 = independently H, halogen, (un)substituted heterocyclo, heteroarylalkyl, haloalkoxy, etc.; X = CO, CS, S, SO, SO2; Y = (un)substituted (cyclo)alkyl, (hetero)aryl,

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heterocyclo; n = 1-4; and salts, hydrates, solvates, clathrate or stereoisomer thereof] were prepared as anticancer agents for treatment of genetic diseases (no data). For example, reaction of 3-aminobenzoic acid with 4-isopropylphenyl isocyanate gave II in 85% yield, which was formulated in the aerosol dosage form. Thus, I and their pharmaceutical compds. are useful for nonsense suppression and the treatment of genetic diseases as anticancer agents (no data).

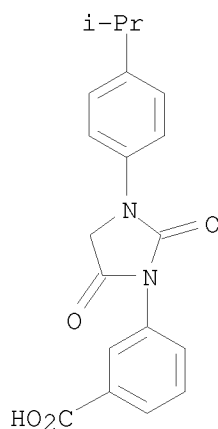
IT 651749-25-6P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of (phenylureido)benzoic acid compds. for use in suppression of nonsense mRNA mutations and the treatment of genetic disease)

RN 651749-25-6 HCAPLUS

CN Benzoic acid, 3-[3-[4-(1-methylethyl)phenyl]-2,5-dioxo-1-imidazolidinyl]-, sodium salt (9CI) (CA INDEX NAME)



● Na

L4 ANSWER 67 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:48426 HCAPLUS

DOCUMENT NUMBER: 141:207116

TITLE: Synthesis of novel bisimidazolidinethione, bispyrroloimidazole, bisimidazoquinoxaline and bithiopyranoimidazole derivatives from cyanothioformamides

AUTHOR(S): El-Shareif, Ahmed M. Sh.; El-Gaby, Mohamed S. A.; Atalla, Ahmed A.; El-Adasy, Bu-Bakr A. A. M.

CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar University, Nasr City, Egypt

SOURCE: Afinidad (2003), 60(507), 475-481

CODEN: AFINAE; ISSN: 0001-9704

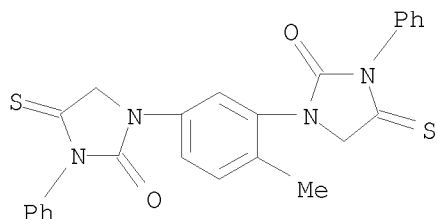
PUBLISHER: Asociacion de Quimicos e Ingenieros del Instituto Quimico de Sarria

DOCUMENT TYPE: Journal

Updated Search

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LANGUAGE: English  
OTHER SOURCE(S): CASREACT 141:207116  
AB Cyclocondensation of 2 mols. of cyanothioformamides RNHCSCN (R = Ph, p-ClC<sub>6</sub>H<sub>4</sub>, p-MeC<sub>6</sub>H<sub>4</sub>) with 2,4-toluenediisocyanate in ether at room temperature furnished the corresponding 2,4-bis[3-R-5-imino-4-thioxo-2-oxoimidazolidin-1-yl]toluenes (I). I (R = Ph) was reacted with malononitrile, o-phenylenediamines, and hydrogen sulfide to yield a bis(pyrroloimidazole), bis(imidazoquinoxalines), and a bis(thiohydantoin), resp. The reactivity of the bis(thiohydantoin) toward electrophilic reagents such as N,N-dimethylformamide dimethylacetal and ylidenemalononitriles was studied and produced a bis(dimethylaminoimidazole) and bis(thiopyranoimidazoles), resp.  
IT 743475-69-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of bis(imidazolidinethione), bis(pyrroloimidazole), bis(imidazoquinoxaline), and bis(thiopyranoimidazole) derivs. from cyanothioformamides)  
RN 743475-69-6 HCAPLUS  
CN 2-Imidazolidinone, 1,1'-(4-methyl-1,3-phenylene)bis[3-phenyl-4-thioxo-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 68 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:966511 HCAPLUS

DOCUMENT NUMBER: 141:174569

TITLE: Parabanic polymers obtained by cyclocondensation reaction of polyureas containing 2,6-pyridyl structure  
AUTHOR(S): Scortanu, Elena; Hitruc, Elena Gabriele; Caraculacu, Adrian A.

CORPORATE SOURCE: Institut de Chimie Macromoleculaire, Iasi, 6600, Rom.  
SOURCE: Buletinul Stiintific al Universitatii "Politehnica" din Timisoara Romania, Seria Chimie si Mediului (2001), 46(1-2), 73-78  
CODEN: BSIMFG; ISSN: 1224-6018

PUBLISHER: Universitatii "Politehnica" din Timisoara

DOCUMENT TYPE: Journal

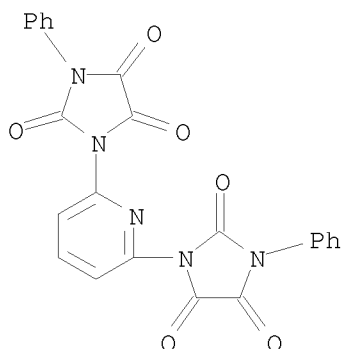
LANGUAGE: French

AB Polymers and model compds. with urea groups are prepared by reactions of isocyanates with 2,6-diaminopyridine. Parabanic group-containing compds. are prepared by cyclization of the urea compds. with oxalyl chloride. The cyclization is particularly influenced by the character of the acid acceptor group on the pyridyl compound

Updated Search

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IT 540776-55-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(model compound; prepare of parabanic polymers obtained by  
cyclocondensation reaction of polyureas containing pyridyl groups)  
RN 540776-55-4 HCAPLUS  
CN Imidazolidinetrione, 1,1'-(2,6-pyridinediyl)bis[phenyl- (9CI) (CA INDEX  
NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 69 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:888088 HCAPLUS

DOCUMENT NUMBER: 140:77105

TITLE: Reactions of isocyanates with methyl  
N-(cyanothioformyl)anthranilate

AUTHOR(S): Deck, L. M.; Papadopoulos, E. P.; Smith, K. A.

CORPORATE SOURCE: Department of Chemistry, University of New Mexico,  
Albuquerque, NM, 87131, USA

SOURCE: Journal of Heterocyclic Chemistry (2003), 40(5),  
885-893

CODEN: JHTCAD; ISSN: 0022-152X

PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:77105

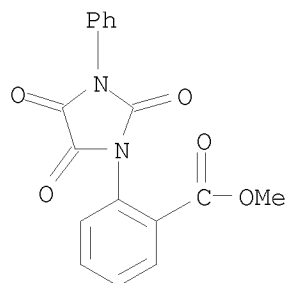
AB The triethylamine-catalyzed reactions of 2-[(cyanothioxomethyl)amino]benzoic acid Me ester with isocyanates result in cyclization involving the cyano group to form 2-(4-imino-2-oxo-3-phenyl-5-thioxo-1-imidazolidinyl)benzoic acid Me ester derivs. Ring closure at the ester carbonyl to form 3,4-dihydro-4-oxo-3-phenyl-2-quinazolinecarbonitrile derivs. was observed when the S-Me derivative of

2-[(cyanothioxomethyl)amino]benzoic acid Me ester (prepared in situ) is allowed to react with aromatic amines. Compds. thus prepared in this study included 3,4-dihydro-3-(2-methylphenyl)-4-oxo-2-quinazolinecarbonitrile, 3-(4-Chlorophenyl)-3,4-dihydro-4-oxo-2-quinazolinecarbonitrile, 3-(4-fluorophenyl)-3,4-dihydro-4-oxo-2-quinazolinecarbonitrile, 2-methoxy-3-phenyl-4(3H)-quinazolinone, 3-(4-fluorophenyl)-3,4-dihydro-4-oxo-2-quinazolinecarbonitrile, 2-(2,4,5-trioxo-3-phenyl-1-imidazolidinyl)benzoic acid Me ester, 2-[3-(2-methylphenyl)-2,4,5-trioxo-1-imidazolidinyl]benzoic acid Me ester,

Updated Search

10501317

IT 2-(2,4-dioxo-3-phenyl-5-thioxo-1-imidazolidinyl)benzoic acid Me ester.  
640272-48-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(reaction of isocyanates with Me [(cyanothioxomethyl)amino]benzoic acid  
Me ester)  
RN 640272-48-6 HCAPLUS  
CN Benzoic acid, 2-(2,4,5-trioxo-3-phenyl-1-imidazolidinyl)-, methyl ester  
(CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 70 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:837035 HCAPLUS

DOCUMENT NUMBER: 139:337787

TITLE: Preparation of novel methoxybenzamides for use in MCH  
receptor related disorders

INVENTOR(S): Hoegberg, Thomas; Bjurling, Anna Emelie; Receveur,  
Jean-Marie; Little, Paul Brian; Elling, Christian E.;  
Norregaard, Pia Karina; Ulven, Trond

PATENT ASSIGNEE(S): 7TM Pharma A/S, Den.

SOURCE: PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

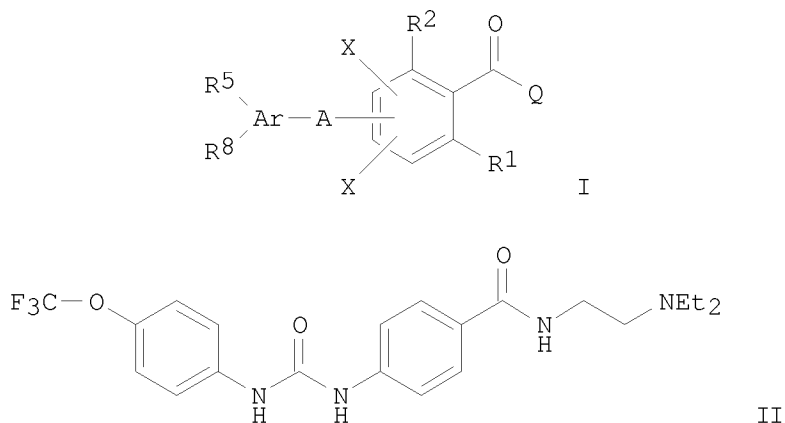
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003087045	A1	20031023	WO 2003-DK231	20030408
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2482341	A1	20031023	CA 2003-2482341	20030408
AU 2003226926	A1	20031027	AU 2003-226926	20030408

Updated Search

EP 1497260	A1	20050119	EP 2003-746255	20030408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2006235035	A1	20061019	US 2005-510907	20050516
PRIORITY APPLN. INFO.:			DK 2002-519	A 20020409
			DK 2002-520	A 20020409
			DK 2002-524	A 20020409
			DK 2002-1818	A 20021125
			WO 2003-DK231	W 20030408
OTHER SOURCE(S):	MARPAT 139:337787			
GI				



AB Title compds. I [wherein A = a linker, e.g. CHR7CONR7, CONR7, OCONR7, SO2NR7, CHR7NR7CO, NR7COR7, hexahydro-2-oxo-pyrimidine-1,3-diyl, 2-oxoimidazolidine-1,3-diyl, 1,2,4-oxadiazole-diyl, 1,3,4-oxadiazole-diyl, CH=CH, OCHR7, NR7CHR7, SCHR7, or (un)substituted imidazole-diyl or 1,2,4-triazole-diyl; Ar = independently (hetero)aryl; R1 = alkoxy; R2 = H, OH, NH2, or alkoxy; COQ = amino-substituted amide; R5 and R6 = independently H, halo, alkoxy, OH, (di)alkylamino, hydroxyalkyl, carboxamido, acyl(amido), CHO, nitrile, alkyl, alkenyl, alkynyl, SMe, (fluoro)alkyl, (fluoro)alkoxy, (fluoro)thioalkoxy, SO2NH2, (di)alkylaminosulfonyl, or alkylsulfonyl; R7 = independently H, alkyl, or alkenyl; R8 = halo, (alkyl)(cyclo)alkyl, alkenyl, alkynyl, (alkyl)(hetero)aryl, (alkyl)heterocyclyl, (aryl)alkoxy, aryloxy, dialkylamino, (di)alkylcarbamoyl, (di)arylcarbamoyl, alkanoyl(amino), aroyl(amino), SMe, (fluoro)alkyl, (fluoro)alkoxy, (fluoro)thioalkoxy, or R6ArB; B = a single bond or connecting moiety; X = H, halo, SMe, CF3, OCF3, SCF3, OMe, alkyl, or alkenyl; and physiol. acceptable salts, complexes, solvates, and prodrugs thereof] were prepared as melanin-concentrating hormone (MCH) receptor modulators. For example, coupling of procainamide with 4-trifluoromethoxyphenyl isocyanate in the presence of TEA in CH2Cl2 gave II (59%). In assays of [<sup>125</sup>I]-MCH binding and phosphatidylinositol turnover using transiently transfected COS-7 cells or stably transfected CHO cells expressing the human MCH-1 receptor, II exhibited activity with IC50 values of 0.07 μM and 0.29 μM, resp. Administration of II (10 mg/kg i.p.) to male Sprague Dawley rats resulted in a significant reduction of



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their cumulative food intake over 6 h. Thus, I and their pharmaceutical compns. are useful in the treatment or prevention of obesity, depression, diabetes, bulimia, and other MCH receptor related disorders (no data).

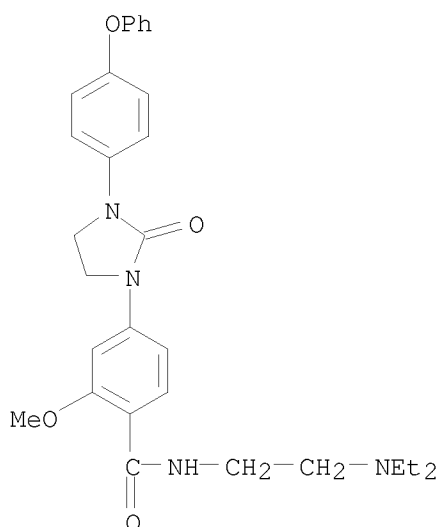
IT 617246-13-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(MCH receptor modulator; preparation of methoxybenzamides as MCH receptor modulators for treatment of obesity, depression, diabetes, bulimia, and related disorders)

RN 617246-13-6 HCAPLUS

CN Benzamide, N-[2-(diethylamino)ethyl]-2-methoxy-4-[2-oxo-3-(4-phenoxyphenyl)-1-imidazolidinyl]- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 71 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:827074 HCAPLUS

DOCUMENT NUMBER: 140:59569

TITLE: Domino condensation/aza-Michael/O→N acyl migration of carbodiimides with activated  $\alpha,\beta$ -unsaturated carboxylic acids to form hydantoins

AUTHOR(S): Volonterio, Alessandro; Zanda, Matteo

CORPORATE SOURCE: Dipartimento di Chimica, Materiali ed Ingegneria Chimica 'G. Natta' del Politecnico di Milano, Milan, I-20131, Italy

SOURCE: Tetrahedron Letters (2003), 44(47), 8549-8551

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:59569

AB Activated  $\alpha,\beta$ -unsatd. carboxylic acids undergo an unexpected

Updated Search

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domino condensation/aza-Michael/O N acyl migration with carbodiimides, producing N,N-disubstituted hydantoins in good yields. An array of structurally varied aspartic acid-derived hydantoins, including some fluorinated derivs., have been synthesized by this method, whose scope and limits are discussed.

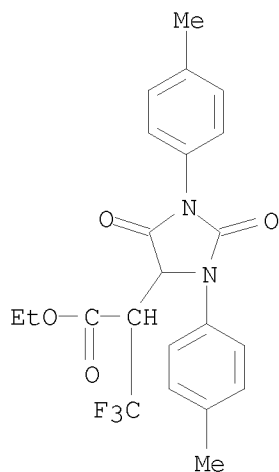
IT 639517-70-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of hydantoins via domino condensation/aza-Michael/O-N acyl migration of carbodiimides with activated  $\alpha,\beta$ -unsatd. carboxylic acids)

RN 639517-70-7 HCAPLUS

CN 4-Imidazolidineacetic acid, 1,3-bis(4-methylphenyl)-2,5-dioxo- $\alpha$ -(trifluoromethyl)-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 72 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:727337 HCAPLUS

DOCUMENT NUMBER: 139:364501

TITLE: Dynamic Kinetic Asymmetric Cycloadditions of Isocyanates to Vinylaziridines

AUTHOR(S): Trost, Barry M.; Fandrick, Daniel R.

CORPORATE SOURCE: Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA

SOURCE: Journal of the American Chemical Society (2003), 125(39), 11836-11837

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:364501

AB The first examples of the use of racemic vinylaziridines in a Pd-catalyzed dynamic kinetic asym. transformation have been examined Optimization studies of the Pd-catalyzed addition of vinylaziridines to isocyanates revealed that the chiral ligand between trans-1,2-diaminocyclohexane and

Updated Search

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2-diphenylphosphino-1-naphthoic acid is superior to that involving 2-diphenylphosphino benzoic acid. Surprisingly, high ee's required the use of an acid whose pKa was about  $4.7 \pm 0.1$  as a cocatalyst. Both acetic acid and hydroxybenzotriazole meet this requirement. Less electrophilic isocyanates (e.g., benzyl, p-methoxyphenyl) gave higher ee's than more electrophilic ones (Ph or benzoyl). Both N-benzyl and N-arylaziridines react well to give good yields and ee's, whereas N-tosylaziridines gave lower ee's. A 1,1-disubstituted aziridine led to the formation of a tertiary C-N bond with ee's comparable to the formation of the secondary C-N bond. The products were easily reduced almost quant. to the sensitive imidazolidines which can be readily hydrolyzed to the vicinal diamines. The reactivity pattern is consistent with a Curtin-Hammett situation wherein the enantiodiscriminating event is the cyclization of a rapidly equilibrating dynamic  $\pi$ -allyl palladium intermediate.

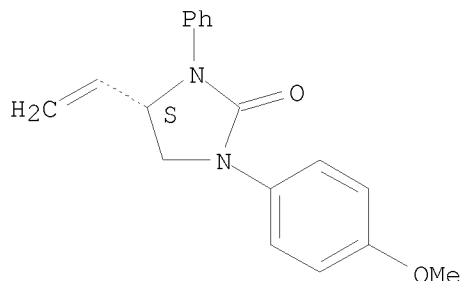
IT 620622-36-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(dynamic kinetic asym. cycloaddns. of isocyanates to vinylaziridines)

RN 620622-36-8 HCAPLUS

CN 2-Imidazolidinone, 4-ethenyl-1-(4-methoxyphenyl)-3-phenyl-, (4S)- (CA  
INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 73 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:591194 HCAPLUS

DOCUMENT NUMBER: 139:150075

TITLE: Metal carbene catalysts used in olefin metathesis,  
atom/group transfer radical polymerization, addition  
reaction and vinylation

INVENTOR(S): Verpoort, Francis Walter Cornelius; De Clercq, Bob

PATENT ASSIGNEE(S): Universiteit Gent, Belg.

SOURCE: PCT Int. Appl., 92 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003062253	A1	20030731	WO 2003-BE8	20030122

Updated Search

10501317

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
EP 1329455 A1 20030723 EP 2002-75250 20020122  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
CA 2473029 A1 20030731 CA 2003-2473029 20030122  
EP 1468004 A1 20041020 EP 2003-731638 20030122  
EP 1468004 B1 20061220  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
JP 2005515260 T 20050526 JP 2003-562130 20030122  
IN 2004DN02056 A 20070511 IN 2004-DN2056 20040716  
US 2005043541 A1 20050224 US 2004-894308 20040719  
PRIORITY APPLN. INFO.: EP 2002-75250 A 20020122  
US 2002-349956P P 20020201  
WO 2003-BE8 W 20030122

OTHER SOURCE(S): MARPAT 139:150075

AB A series of five-coordinated ruthenium carbene complexes with  
multidentate, steric hindered ligands are synthesized and used as catalyst  
components in olefin metathesis reactions, atom or group transfer radical  
polymerization, addition reactions, vinylation reactions. The catalyst system  
can

also be used for polymerization of  $\alpha$ -olefins, and optionally conjugated  
dienes, with high activity at moderate temps. The obtained polymers have  
extremely narrow mol. weight distribution by means of a living polymerization  
reaction. The synthetic methods for making the metal complexes and the  
novel intermediates are described. The metal carbene complexes are  
suitable for covalent bonding to a carrier, the product of such covalent  
bonding being useful as a supported catalyst for heterogeneous catalytic  
reactions. The catalysts can be used for direct one-step synthesis of  
pyrrole, furan, thiophene compds. and other biol. active compds. from  
diallyl compds.

IT 340810-49-3

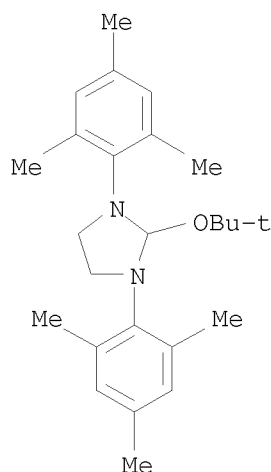
RL: RCT (Reactant); RACT (Reactant or reagent)

(for manufacture of metal carbene complexes for use in olefin metathesis,  
atom/group transfer radical polymerization, addition reaction and  
vinylation)

RN 340810-49-3 HCAPLUS

CN Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)- (CA  
INDEX NAME)

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REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 74 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:568624 HCAPLUS

DOCUMENT NUMBER: 139:133973

TITLE: Metal carbene complexes, methods and intermediates for making them and their use in metathesis reactions

INVENTOR(S): Verpoort, Francis Walter Cornelius; De Clercq, Bob

PATENT ASSIGNEE(S): Universiteit Gent, Belg.

SOURCE: Eur. Pat. Appl., 44 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

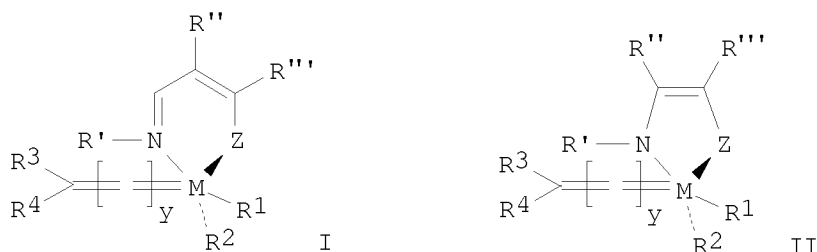
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1329455	A1	20030723	EP 2002-75250	20020122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2473029	A1	20030731	CA 2003-2473029	20030122
WO 2003062253	A1	20030731	WO 2003-BE8	20030122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1468004	A1	20041020	EP 2003-731638	20030122
EP 1468004	B1	20061220		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

Updated Search

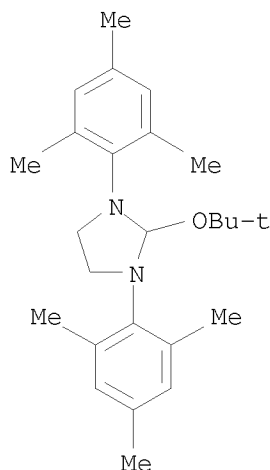
	IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK		
JP 2005515260	T	20050526	JP 2003-562130 20030122
AT 348835	T	20070115	AT 2003-731638 20030122
EP 1743899	A1	20070117	EP 2006-20387 20030122
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,		
	IT, LI, LU, MC, NL, PT, SE, SI, SK, TR		
ES 2279117	T3	20070816	ES 2003-731638 20030122
ZA 2004005685	A	20050816	ZA 2004-5685 20040716
IN 2004DN02056	A	20070511	IN 2004-DN2056 20040716
US 2005043541	A1	20050224	US 2004-894308 20040719
PRIORITY APPLN. INFO.:			EP 2002-75250 A 20020122
			US 2002-349956P P 20020201
			EP 2003-731638 A3 20030122
			WO 2003-BE8 W 20030122
OTHER SOURCE(S):	MARPAT 139:133973		
GI			



AB    Compsds. having one of the general formulas I and II [wherein: M is a metal; Z is selected from the group consisting of O, S, NR''' and PR'''; R', '' and R''' are each a radical independently selected from H, C1-6 alkyl, C3-8 cycloalkyl, aryl and heteroaryl, or R' and R'' together form an aryl or heteroaryl radical, each said radical being optionally substituted; R5 is either as defined for R', R'' and R''' when included in a compound having the general formula I or, when included in a compound having the general formula II, is selected from H, C1-6 alkylene and C3-8 cycloalkylene, the said alkylene and cycloalkylene group being optionally substituted; R1 is a constraint steric hindrance group having a pKa of at least about 15; R2 is an anionic ligand; R3 and R4 are each H or a radical selected from, among others, C1-20 alkyl, C1-20 alkenyl; R3 and R4 together may form a fused aromatic ring system, and y represents the number of sp<sup>2</sup> carbon atoms between M and the carbon atom bearing R3 and R4 and is an integer from 0 to 3 inclusive] are useful as catalysts for olefin metathesis and atom transfer radical polymerization

IT	340810-49-3P	
	RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT	
	(Reactant or reagent)	
	(manufacture of metal carbene complexes for use in metathesis and atom	
	transfer radical polymerization of olefins)	
RN	340810-49-3	HCAPLUS
CN	Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)-	(CA
	INDEX NAME)	

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REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 75 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:551382 HCAPLUS

DOCUMENT NUMBER: 139:117423

TITLE: Preparation of cyclic urea derivatives with 5-HT<sub>2c</sub> receptor activity

INVENTOR(S): Bromidge, Steven Mark; Lovell, Peter John; Goodacre, Caroline

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057220	A1	20030717	WO 2003-GB20	20030107
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003201636	A1	20030724	AU 2003-201636	20030107
EP 1465630	A1	20041013	EP 2003-700335	20030107
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2005524620	T	20050818	JP 2003-557578	20030107
US 2005154028	A1	20050714	US 2005-501317	20050222

Updated Search

10501317

PRIORITY APPLN. INFO.:

GB 2002-283

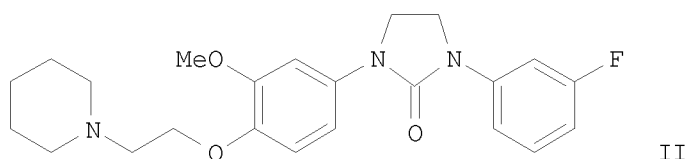
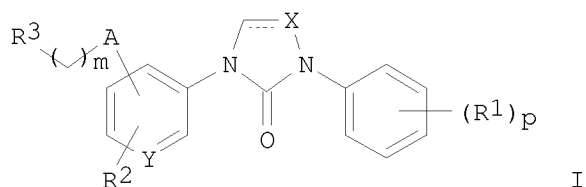
A 20020108

WO 2003-GB20

W 20030107

OTHER SOURCE(S): MARPAT 139:117423

GI



AB Title compds. I [p = 0-5; m = 1-3; Y = N, C; A = O, N, CONH, NHCO, etc.; R1 = halo, alkyl, alkoxy, alkylthio, etc.; R2 = H, halo, alkyl, alkoxy, haloalkyl, haloalkoxy; R3 = amino; X = CH2, CO] are prepared For instance, 2-(3-fluorophenylamino)ethanol (preparation given) is reacted with MsCl/CH2Cl2 followed by 3-benzyloxy-4-methoxyphenylamine to give the corresponding substituted diamine. This intermediate is treated with phosgene to give 1-(3-benzyloxy-4-methoxyphenyl)-3-(3-fluorophenyl)imidazolidin-2-one. Substitution of this using 1-(2-chloroethyl)piperidine•HCl (MeOCH2CH2OMe, K2CO3, reflux, 5 h) afforded II. I exhibit 5-HT2c receptor activity and are useful for the treatment of CNS disorders such as depression or anxiety.

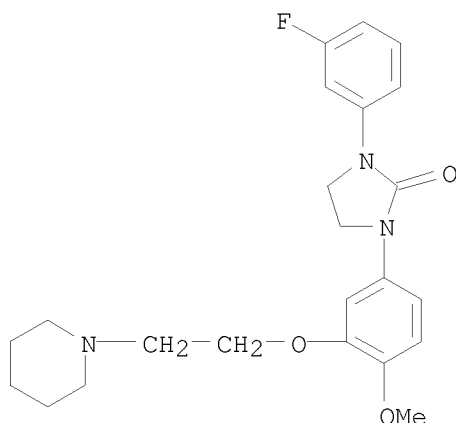
IT 561277-37-0P, 1-(3-Fluorophenyl)-3-[4-methoxy-3-(2-(piperidinyl)ethoxy)phenyl]imidazolidin-2-one  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of cyclic urea derivs. with 5-HT2C receptor activity)

RN 561277-37-0 HCAPLUS

CN 2-Imidazolidinone, 1-(3-fluorophenyl)-3-[4-methoxy-3-[2-(1-piperidinyl)ethoxy]phenyl]- (CA INDEX NAME)



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REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 76 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:485719 HCAPLUS

DOCUMENT NUMBER: 139:53315

TITLE: Preparation of N-sulfonylated dipeptide derivatives as inhibitors of leukocyte adhesion mediated by VLA-4

INVENTOR(S): Thorsett, Eugene D.; Semko, Christopher M.; Pleiss, Michael A.; Kreft, Anthony; Konradi, Andrei W.; Grant, Francine S.; Baudy, Reinhardt Bernhard; Sarantakis, Dimitrios

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 81 pp., Cont.-in-part of U.S. Ser. No. 127,346, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6583139	B1	20030624	US 2000-688820	20001017
US 2004006093	A1	20040108	US 2003-382988	20030307
PRIORITY APPLN. INFO.:			US 1997-104592P	P 19970731
			US 1998-127346	B1 19980731
			US 2000-688820	A1 20001017

OTHER SOURCE(S): MARPAT 139:53315

AB Disclosed are N-sulfonylated dipeptides R1SO<sub>2</sub>NR<sub>2</sub>CHR<sub>3</sub>-Q-CHR<sub>5</sub>CO<sub>2</sub>H [R<sub>1</sub>, R<sub>3</sub> = (un)substituted alkyl, aryl, cycloalkyl, heterocyclyl or heteroaryl; R<sub>2</sub> = H, (un)substituted cycloalkenyl, or any group given for R<sub>1</sub>; or R<sub>2</sub> may form an (un)substituted heterocyclic ring with R<sub>1</sub> or R<sub>3</sub>; R<sub>5</sub> = CH<sub>2</sub>-X', where X' = H, OH, acylamino, (cyclo)alkyl, alkoxy, aryloxy, (hetero)aryl, aryloxyalkyl, carboxy, carboxyalkyl, etc.; Q = C(X)NR<sub>7</sub>; R<sub>7</sub> = H, alkyl; X = O, S (with provisos)] which bind VLA-4. Certain of these compds. also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compds. are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, such as asthma, Alzheimer's

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disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. The compds. can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis. Thus, coupling of N-tosyl-L-proline with L-tyrosine Me ester, followed by reaction with (1-bromoethyl)benzene and saponification, afforded N-tosyl-L-prolyl-4-( $\alpha$ -methylbenzyloxy)-L-phenylalanine.

IT 220303-43-5P

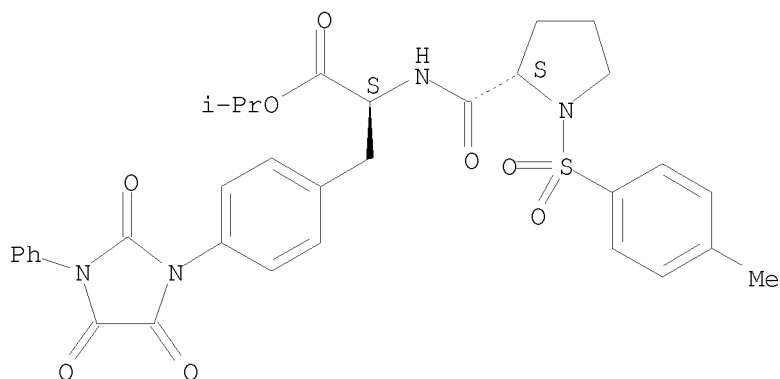
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-sulfonylated dipeptide derivs. as inhibitors of leukocyte adhesion mediated by VLA-4)

RN 220303-43-5 HCAPLUS

CN L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-(2,4,5-trioxo-3-phenyl-1-imidazolidinyl)-, 1-methylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 77 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:480698 HCAPLUS

DOCUMENT NUMBER: 139:395896

TITLE: Utility of cyanothioformamides in synthesis of some bis(imidazole, oxazole, thiazole, oxadiazole, triazole, benzoxazinethione and quinazoline) derivatives

AUTHOR(S): El-Sharief, A. M. Sh.; Ammar, Y. A.; Zahran, M. A.; Sabet, H. Kh.

CORPORATE SOURCE: Chem. Dept., Fac. of Science, Al-Azhar Univ., Cairo, Egypt

SOURCE: Journal of Chemical Research, Synopses (2003), (3), 162-167

CODEN: JRPSDC; ISSN: 0308-2342

PUBLISHER: Science Reviews

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:395896

AB Interaction of N,N'-1,4-phenylenebis[carbonocyanidothioic amide]

Updated Search

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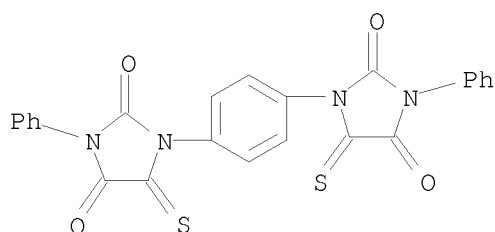
[1,4-bis(cyanothioformamido)benzene] with various electrophilic and nucleophilic reagents furnished the corresponding bis[imidazole], bis[oxazole], bis[thiazole], bis[oxadiazole], bis[triazole], bis[benzoxazinethione] and bis[quinazoline] derivs.

IT 625855-58-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of bis[imidazole], bis[oxazole], bis[thiazole], bis[oxadiazole], bis[triazole], bis[benzoxazinethione] and bis[quinazoline] derivs. using N,N'-phenylenebis[carbonocyanidothioic amide])

RN 625855-58-5 HCAPLUS

CN 2,4-Imidazolidinedione, 1,1'-(1,4-phenylene)bis[3-phenyl-5-thioxo- (CA  
INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 78 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:412758 HCAPLUS

DOCUMENT NUMBER: 139:261184

TITLE: Synthesis of novel fused imidazole derivatives

AUTHOR(S): El-Sharief, A. M. Sh.; Ammar, Y. A.; El-Gaby, M. S. A.; Zahran, M. A.; Khames, A. A.

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Al-Azhar University, Nasr City, Cairo, 11884, Egypt

SOURCE: Afinidad (2003), 60(503), 47-54

CODEN: AFINAE; ISSN: 0001-9704

PUBLISHER: Asociacion de Quimicos del Instituto Quimico de Sarria

DOCUMENT TYPE: Journal

LANGUAGE: Spanish

OTHER SOURCE(S): CASREACT 139:261184

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Imidazolidinones I (X = O, S; R = Br, PhNH; R1 = Ph, C6H4Cl-4, allyl, Bz) were synthesized via reactions of cyanothioformamides with aromatic isocyanates, allyl isothiocyanate, and benzoyl isothiocyanate. Cyclization of I (X = S, R = Br, R1 = allyl) with o-phenylenediamine afforded the imidazo[4,5-b]quinoxaline II via elimination of H2S and NH3. Reduction of I (X = O; R = Br, PhNH; R1 = Ph) with hydrogen sulfide in absolute ethanol/TEA yielded the thiohydantoin III (R = Br, PhNH). Treatment of

Updated Search

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III with some electrophilic reagents such as aromatic aldehydes, tri-Et orthoformate and DMF di-Me acetal furnished thioxoimidazolidinones. Thiopyrano[2,3-d]imidazoles IV (R = Br, PhNH; R1 = H, MeO) were obtained by refluxing of benzylidenemalononitriles with III in ethanol containing a catalytic amount of piperidine. Reaction of III with chloroacetic acid yielded the thieno[2,3-d]imidazole V. Refluxing of I (X = S, R = Br, R1 = Bz) with o-phenylenediamine and anthranilic acid furnished an imidazo[4,5-b]quinoxaline and an imidazo[3,4-b]quinazoline, resp.

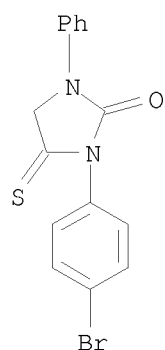
IT 602304-49-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(imidazoles and fused imidazole derivs.)

RN 602304-49-4 HCAPLUS

CN 2-Imidazolidinone, 3-(4-bromophenyl)-1-phenyl-4-thioxo- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 79 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:334684 HCAPLUS

DOCUMENT NUMBER: 138:338706

TITLE: High activity metal carbene metathesis catalysts generated using a thermally activated n-heterocyclic carbene precursor, preparation of heterocyclic carbene, and olefin reactions

INVENTOR(S): Grubbs, Robert H.; Moore, Jason L.; Morgan, John P.; Bell, Andrew

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 37 pp., Cont.-in-part of U. S. Ser. No. 107,531.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003083445	A1	20030501	US 2002-138188	20020503
US 2003144437	A1	20030731	US 2002-107531	20020325
US 6838489	B2	20050104		

Updated Search

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CN 1511064	A	20040707	CN 2002-810460	20020325
WO 2003097562	A2	20031127	WO 2002-US13989	20020503
WO 2003097562	A3	20040521		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002367891	A1	20031202	AU 2002-367891	20020503
CA 2455893	A1	20030213	CA 2002-2455893	20020614
WO 2003011455	A1	20030213	WO 2002-US19167	20020614
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002355711	A1	20030217	AU 2002-355711	20020614
EP 1423195	A1	20040602	EP 2002-791535	20020614
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
CN 1561261	A	20050105	CN 2002-819432	20020614
JP 2005508883	T	20050407	JP 2003-516680	20020614
CN 1911942	A	20070214	CN 2006-10092354	20020614
MX 2004PA01004	A	20040625	MX 2004-PA1004	20040130
HK 1071323	A1	20070105	HK 2005-104174	20050518
PRIORITY APPLN. INFO.:			US 2001-278311P	P 20010323
			US 2001-288680P	P 20010503
			US 2002-360775P	P 20020301
			US 2002-107531	A2 20020325
			US 2001-309806P	P 20010801
			US 2001-314978P	P 20010824
			US 2001-948115	A 20010905
			US 2001-17489	A 20011214
			US 2002-138188	A 20020503
			WO 2002-US13989	W 20020503
			CN 2002-819432	A3 20020614
			WO 2002-US19167	W 20020614

OTHER SOURCE(S): MARPAT 138:338706

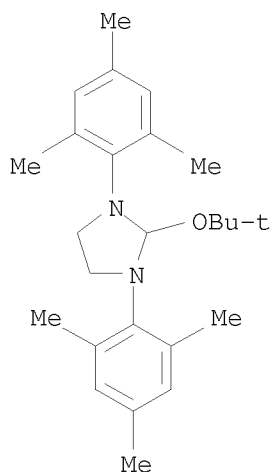
AB The title method is for converting a less active or slower to initiate system to a higher activity system so that at the end of a polymerization the most active species is present in the system. The process comprises contacting a protected N-heterocyclic carbene with a metathesis catalyst (e.g. Ru) and an olefin in the presence of energy. One of the benefits is that the amount of catalyst required is less than or lowered in the presence of the protected N-heterocyclic carbene as compared to the amount of catalyst required in the absence of the protected N-heterocyclic carbene. The protected N-heterocyclic carbene can be unsatd. or saturated

IT 340810-49-3P

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RL: IMF (Industrial manufacture); PREP (Preparation)  
(ligand; high activity metal catalysts having a thermally-activated  
protected N-heterocyclic carbene ligand for olefins)  
RN 340810-49-3 HCAPLUS  
CN Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)- (CA  
INDEX NAME)



L4 ANSWER 80 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:319488 HCAPLUS  
DOCUMENT NUMBER: 138:337988  
TITLE: Novel 2-[(iminomethyl)amino]phenyl derivatives useful  
as inhibitors of NO synthase and lipid peroxidation,  
their preparation, their application as medicines, and  
pharmaceutical compositions containing them  
INVENTOR(S): Chabrier De Lassauniere, Pierre Etienne; Auvin, Serge;  
Bigg, Dennis; Auguet, Michel; Harnett, Jeremiah  
PATENT ASSIGNEE(S): Societe de Conseils de Recherches et D'Applications  
scientifiques (S.C.R.A.S.), Fr.  
SOURCE: U.S. Pat. Appl. Publ., 78 pp., Cont.-in-part of U.S.  
Ser. No. 882,264.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078420	A1	20030424	US 2002-191950	20020709
US 6809088	B2	20041026		
FR 2761066	A1	19980925	FR 1997-3528	19970324
FR 2761066	B1	20001124		
FR 2764889	A1	19981224	FR 1997-7701	19970620
FR 2764889	B1	20000901		
WO 9842696	A1	19981001	WO 1998-FR288	19980216

Updated Search

10501317

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

WO 9858934 A1 19981230 WO 1998-FR1250 19980615

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 6335445 B1 20020101 US 1999-456205 19991207

US 2002007062 A1 20020117 US 2001-882264 20010615

US 6630461 B2 20031007

US 2005043397 A1 20050224 US 2004-898916 20040726

US 7122535 B2 20061017

US 2005187272 A1 20050825 US 2005-105291 20050413

IN 2006DE01211 A 20071123 IN 2006-DE1211 20060517

PRIORITY APPLN. INFO.:

FR 1997-3528 A 19970324

FR 1997-7701 A 19970620

WO 1998-FR288 W 19980216

WO 1998-FR1250 W 19980615

US 1999-456205 A3 19991207

US 2001-882264 A2 20010615

IN 1998-DE599 A3 19980309

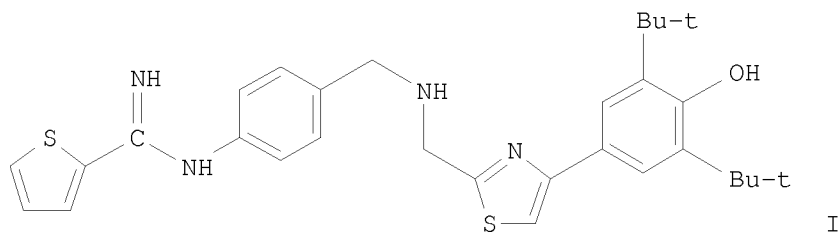
US 1999-381749 A2 19990922

US 2002-191950 A3 20020709

US 2004-898916 A3 20040726

OTHER SOURCE(S): MARPAT 138:337988

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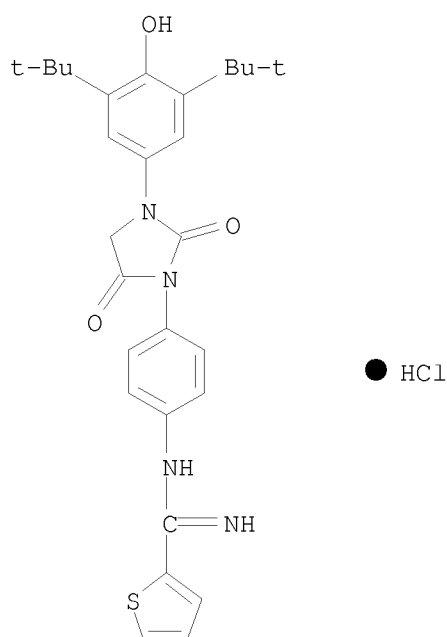
AB Title compds., e.g., N-[4-[[[4-(3,5-di-tert-butyl-4-hydroxyphenyl)-1,3-thiazol-2-yl]methyl]amino]methyl]phenyl]thiophene-2-carboximidamide (I) are prepared The compds. are inhibitors of NO synthases, and are also antioxidants which inhibit lipid peroxidn. Approx. 70 examples are prepared I had IC50 for inhibiting rat neuronal NO synthase in vitro < 3.5  $\mu$ M,

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and the IC50 for inhibiting rat cerebral lipid peroxidn. in vitro is < 30  $\mu$ M.

IT 218943-85-2P, 3-(3,5-Di-tert-butyl-4-hydroxyphenyl)-1-[4-[[imino(2-thienyl)methyl]amino]phenyl]-2,5-imidazolidinedione hydrochloride  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation and testing of 2-[(iminomethyl)amino]phenyl derivs. as inhibitors of NO synthase and lipid peroxidn.)  
RN 218943-85-2 HCAPLUS  
CN 2-Thiophenecarboximidamide, N-[4-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2,5-dioxo-1-imidazolidinyl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



L4 ANSWER 81 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:189306 HCAPLUS  
DOCUMENT NUMBER: 139:36890  
TITLE: Parabanic polymers obtained by the cyclocondensation reaction of polyureas containing 2,6-pyridyl structure  
AUTHOR(S): Scortanu, Elena; Hitruc, Elena Gabriela; Caraculacu, Adrian A.  
CORPORATE SOURCE: Aleea Grigore Ghica Voda, Institute of Macromolecular Chemistry "Petru. Poni", Iasi, 6600, Rom.  
SOURCE: European Polymer Journal (2003), 39(5), 1051-1061  
CODEN: EUPJAG; ISSN: 0014-3057  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The polymers containing 1,3-imidazolidine-2,4,5-trione rings on the macromol. backbone are known for a few years and named poly(parabanic acid)s. The

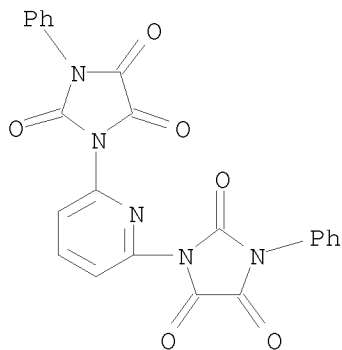
Updated Search



paper presents some polymers and model compds. with urea and/or parabanic structures, as a result of the cyclocondensation reaction of the urea derivs. containing 2,6-pyridyl rest, with the oxalyl chloride. The 2,6-pyridyl radical has an acid acceptor character that dets. an important distinct influence on the cyclocondensation reaction. The influence of the reaction conditions (temperature, time, beside of the presence or absence of pyridine (Py)) on the progress of the cyclocondensation was studied. The advance of the reaction was followed by IR spectra. The products were characterized by the elemental anal., <sup>1</sup>H NMR and IR spectra, solubilities and viscosity measurements. Thermal properties were determined by thermogravimetric analyses and differential scanning calorimetry. The anal. and spectral data demonstrated that, in absence of Py, the cyclocondensation performed almost completely only in the case of the aliphatic polyureas, while, in the same conditions, the aromatic polymers were only partly transformed. By using the Py as catalyst, both aromatic and aliphatic polyureas can be transformed into parabanic polymers at above 90% transformation degree (TD). A calcn. method of the TD based on the IR spectroscopy was discussed.

IT 540776-55-4P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (model compound; preparation of model compds. for parabanic polymers obtained by cyclocondensation reaction of polyureas containing 2,6-pyridyl structure)

RN 540776-55-4 HCAPLUS  
 CN Imidazolidinetrione, 1,1'-(2,6-pyridinediyl)bis[phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 82 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:110350 HCAPLUS  
 DOCUMENT NUMBER: 138:304397  
 TITLE: Synthesis and Activity of Ruthenium Alkylidene Complexes Coordinated with Phosphine and N-Heterocyclic Carbene Ligands  
 AUTHOR(S): Trnka, Tina M.; Morgan, John P.; Sanford, Melanie S.; Wilhelm, Thomas E.; Scholl, Matthias; Choi, Tae-Lim; Ding, Sheng; Day, Michael W.; Grubbs, Robert H.

10501317

CORPORATE SOURCE: Arnold and Mabel Beckman Laboratory of Chemical  
Synthesis, Division of Chemistry and Chemical  
Engineering, California Institute of Technology,  
Pasadena, CA, 91125, USA

SOURCE: Journal of the American Chemical Society (2003),  
125(9), 2546-2558  
CODEN: JACSAT; ISSN: 0002-7863

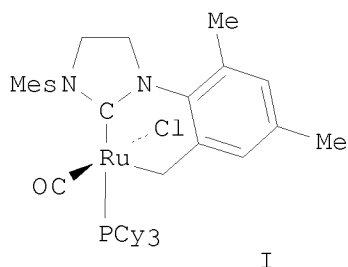
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:304397

GI



I

AB The preparation and characterization of a variety of ruthenium complexes coordinated with phosphine and N-heterocyclic carbene (NHC) ligands are reported. Ligand Ph3Tri (2,4-dihydro-2,4,5-triphenyl-3H-1,2,4-triazol-3-ylidene) was prepared in the form of its MeOH adduct Ph3Tri(H)(OMe) (2,4-dihydro-3-methoxy-2,4,5-triphenyl-3H-1,2,4-triazole) by one-pot condensation of N-phenylbenzamide phenylhydrazone with HC(OEt)3 in the presence of NH4BF4 followed by NaOMe. Its ruthenium complexes (Ph3Tri)Cl2(PCy3)Ru:CHR (1a, R = Ph; 1b, R = CH:CMe2) were prepared by reacting of (PCy3)2Cl2Ru:CHR with Ph3Tri(H)(OMe). Improved protocol of preparation of (H2IMes)(PCy3)Cl2Ru:CHPh (2) from ligand-CHCl3 adduct, 1,3-dimesityl-2-(trichloromethyl)imidazolidine, is described. When the preparation of 2 is carried out in the presence of air oxygen and moisture, only I (4, Mes = 2,4,6-Me3C6H2) could be isolated due to oxidation-promoted C-H-bond activation and hydrolysis. Bis-imidazolyliidene complexes [(H2IMes)(IMes)Cl2Ru:CHPh] (6a, IMes = 1,3-dihydro-1,3-dimesityl-2H-imidazol-2-ylidene) and [(H2IMes)2Cl2Ru:CHPh] (6b) were prepared by pyridine for carbene substitution in [(H2IMes)Py2Cl2Ru:CHPh]. Some of the prepared complexes are active olefin metathesis catalysts (RCM and ROMP). Although these catalysts can be prepared adequately by the reaction of bis(phosphine) ruthenium alkylidene precursors with free NHCs, we have developed an alternative route that employs NHC-alc. or -chloroform adducts as "protected" forms of the NHC ligands. This route is advantageous because NHC adducts are easier to handle than their free carbene counterparts. Crystal structures of 4 and 6a are presented. Other side reactions encountered during the synthesis of new ruthenium alkylidene complexes include the formation of hydrido-carbonyl-chloride derivs. in the presence of primary alcs. and the deprotonation of ruthenium vinylcarbene ligands by KOBut.

IT 340810-49-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

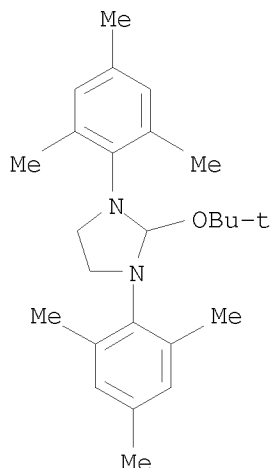
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(Reactant or reagent)

(complexation; preparation, structure and catalytic properties of ruthenium imidazolidinylidene and triazolylidene carbene complexes)

RN 340810-49-3 HCAPLUS

CN Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 171 THERE ARE 171 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 83 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:5764 HCAPLUS

DOCUMENT NUMBER: 138:66678

TITLE: Aryl and heteroaryl compounds for use in disorders associated with mast cell or basophil activity

INVENTOR(S): Madsen, Lars Siim; Dahl, Bjarne H.

PATENT ASSIGNEE(S): Poseidon Pharmaceuticals A/S, Den.

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003000245	A1	20030103	WO 2002-DK416	20020620
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,			

Updated Search

10501317

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
AU 2002317708 A1 20030108 AU 2002-317708 20020620  
US 2005080112 A1 20050414 US 2003-481255 20031218  
PRIORITY APPLN. INFO.: DK 2001-990 A 20010622  
WO 2002-DK416 W 20020620

OTHER SOURCE(S): MARPAT 138:66678

AB The invention relates to the use of certain compds. for the treatment, prevention or alleviation of a disorder or disease which is responsive to modulation of the mast cell or basophil activity of the subject. Compds. of the invention include AXpYqZrB [A = (un)substituted (hetero)aryl; B = substituted (hetero)aryl; X, Y, Z = CO, CS, SO<sub>2</sub>, NR<sub>10</sub> (R<sub>10</sub> = H, alkyl), etc.; p, q, r = 0, 1]. Compds. of the invention include e.g. 3-trifluoromethylphenyl-N'-2-carboxyphenyl urea.

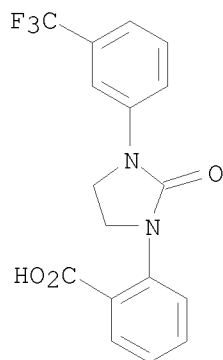
IT 265647-05-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(aryl and heteroaryl compds. for treatment of disorders associated with mast cell or basophil activity)

RN 265647-05-0 HCAPLUS

CN Benzoic acid, 2-[2-oxo-3-[3-(trifluoromethyl)phenyl]-1-imidazolidinyl]- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 84 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:832746 HCAPLUS

DOCUMENT NUMBER: 137:352492

TITLE: Copper-catalyzed formation of carbon-heteroatom and carbon-carbon bonds by arylation and vinylation of amines, amides, hydrazides, heterocycles, alcohols, enolates, and malonates, using aryl, heteroaryl, and vinyl halides and analogs

INVENTOR(S): Buchwald, Stephen L.; Klapars, Artis; Antilla, Jon C.; Job, Gabriel E.; Wolter, Martina; Kwong, Fuk Y.; Nordmann, Gero; Hennessy, Edward J.

PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA

SOURCE: PCT Int. Appl., 306 pp.

CODEN: PIXXD2

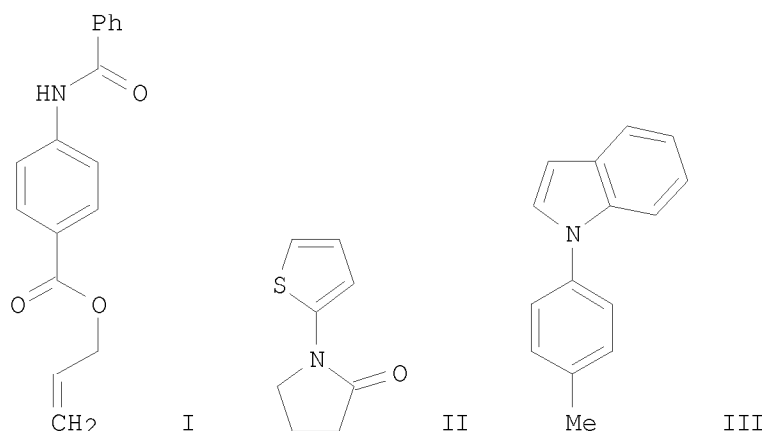
DOCUMENT TYPE: Patent

Updated Search

10501317

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

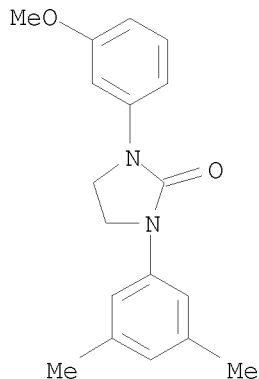
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085838	A1	20021031	WO 2002-US12785	20020424
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2445159	A1	20021031	CA 2002-2445159	20020424
AU 2002258946	A1	20021105	AU 2002-258946	20020424
US 2003065187	A1	20030403	US 2002-128981	20020424
US 6759554	B2	20040706		
EP 1390340	A1	20040225	EP 2002-728925	20020424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1518534	A	20040804	CN 2002-812587	20020424
JP 2004536798	T	20041209	JP 2002-583366	20020424
CN 1854128	A	20061101	CN 2006-10082481	20020424
US 2004019216	A1	20040129	US 2003-435719	20030508
US 6867298	B2	20050315		
US 2005215794	A1	20050929	US 2005-28500	20050104
US 7115784	B2	20061003		
US 2006264673	A1	20061123	US 2006-431154	20060509
PRIORITY APPLN. INFO.:			US 2001-286268P	P 20010424
			US 2001-348014P	P 20011024
			US 2001-344208P	P 20011221
			CN 2002-812587	A3 20020424
			US 2002-128981	A3 20020424
			WO 2002-US12785	W 20020424
			US 2003-435719	A3 20030508
			US 2005-28500	A3 20050104
OTHER SOURCE(S):		CASREACT 137:352492; MARPAT 137:352492		
GI				



AB The invention relates to copper-catalyzed carbon-heteroatom and carbon-carbon bond-forming methods. More specifically, it relates to the arylation, heteroarylation, and vinylation of compds. with nucleophilic N, O, and C atoms, by aryl and vinyl halides and sulfonates, using various Cu-based catalysts and suitable ligands. The methods provide an inexpensive alternative to corresponding palladium-catalyzed reactions. Thus, the invention includes copper-catalyzed methods of forming a carbon-nitrogen bond between the nitrogen atom of an amide or amine moiety and the activated carbon of an aryl, heteroaryl, or vinyl halide or sulfonate. The invention provides similar copper-catalyzed reactions of acyl hydrazines (i.e., hydrazides). The invention further relates to copper-catalyzed arylation and vinylation of nitrogen-containing heteroaroms., e.g., indole, pyrazole, and indazole, at nitrogen. Similarly, the invention provides copper-catalyzed arylation and vinylation of alcs. at the oxygen atom. Finally, the invention provides copper-catalyzed methods of forming a carbon-carbon bond between reactants with nucleophilic carbon atoms, e.g., an enolate or malonate anion, and the activated carbon of the aryl, heteroaryl, or vinyl halides or sulfonates. Importantly, all of the invention methods are relatively inexpensive to practice due to the low cost of the copper catalysts. For example, a claimed method for amines, amides, and hydrazides involves reaction of halides and sulfonates Z-X [Z = (un)substituted aryl, heteroaryl, or alkenyl; X = iodo, Br, Cl, alkylsulfonate, arylsulfonate] with amines and derivs. R-NH-R' [R = alkyl, cycloalkyl aralkyl, aryl, heteroaryl, formyl, acyl, alkoxycarbonyl, aryloxycarbonyl, acylamino, etc.; R' = H, alkyl, cycloalkyl, (hetero)aralkyl, (hetero)aryl, formyl, acyl, amino, or amidino; with provisos] in the presence of a copper atom or ion and a ligand in the presence of a Bronsted base, yielding a corresponding arylated or vinylated product Z-NRR'. Thus, arylation of benzamide with allyl 4-iodobenzoate in dioxane solvent in the presence of CuI (catalyst), trans-1,2-cyclohexanediamine (ligand), and K<sub>3</sub>PO<sub>4</sub> (base), at 110° in a resealable Schlenk tube, gave the expected product I in 91% yield. Similarly, 2-pyrrolidinone was N-heteroarylated by 2-iodothiophene under the same conditions to give II in quant. yield. Indole was N-arylated by 4-bromotoluene to give III in 95% yield. A similar reaction of (E)-2-undecen-1-ol with (E)-1-iodo-1-decene using CuI, 3,4,7,8-tetramethyl-1,10-phenanthroline, and Cs<sub>2</sub>CO<sub>3</sub> in PhMe at 80°, gave 68% (E,E)-1-(dec-1-enyloxy)undec-2-ene.

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IT 474352-97-1P, N-(3-Methoxyphenyl)-N'-(3,5-dimethylphenyl)-2-imidazolidone  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(arylation product; inexpensive copper-catalyzed arylation and vinylation of amines, amides, heterocycles, alcs., and enolates, using aryl, heteroaryl, and vinyl halides and analogs)  
RN 474352-97-1 HCAPLUS  
CN 2-Imidazolidinone, 1-(3,5-dimethylphenyl)-3-(3-methoxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 85 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:805945 HCAPLUS

DOCUMENT NUMBER: 138:73666

TITLE: The effect of the conformational rigidity on the initial decomposition temperature of some heterocyclic polyimides

AUTHOR(S): Ronova, Inga A.; Vasilyuk, Andrey N.; Gaina, C.; Gaina, V.

CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia

SOURCE: High Performance Polymers (2002), 14(2), 195-208  
CODEN: HPPOEX; ISSN: 0954-0083

PUBLISHER: Sage Publications

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of the conformational rigidity on the initial decomposition temperature of

some heterocyclic polyimides was investigated. Calcns. by the Monte Carlo method were used for conformational anal. of these polymers. There is a linear dependence of the initial decomposition temperature on the conformational

parameters of a set of the polyimides containing a 1,4-dithiine or thiofene fragment and poly(ether-bismaleimide)s containing ester or parabanic rings. It was also shown that partial cyclization of the parabanic rings occurs in the polyimides containing a 1,4-dithiine or thiofene fragment.

IT 199927-15-6

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP

Updated Search

10501317

(Physical process); PROC (Process)

(conformational rigidity effects on initial decomposition temperature of heterocyclic polyimides)

RN 199927-15-6 HCAPLUS

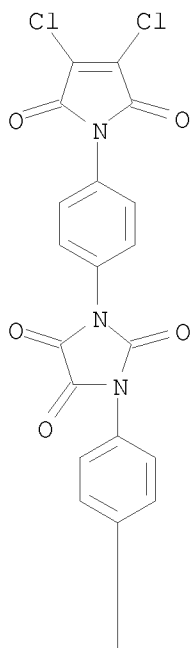
CN Imidazolidinetrione, bis[4-(3,4-dichloro-2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)phenyl]-, polymer with 1,4-benzenediol (9CI) (CA INDEX NAME)

CM 1

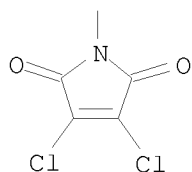
CRN 199927-08-7

CMF C23 H8 Cl4 N4 O7

PAGE 1-A



PAGE 2-A



CM 2

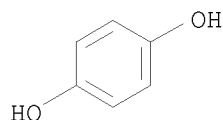
CRN 123-31-9

CMF C6 H6 O2

Updated Search



10501317



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 86 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:754284 HCAPLUS

DOCUMENT NUMBER: 137:279610

TITLE: High activity metal carbene metathesis catalysts generated using a thermally activated N-heterocyclic carbene (NHC) precursor, catalyst preparation, and use  
INVENTOR(S): Bell, Andrew; Grubbs, Robert H.; Morgan, John P.; Moore, Jason L.

PATENT ASSIGNEE(S): California Institute of Technology, USA; Cymetech, LLC  
SOURCE: PCT Int. Appl., 100 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002076613	A1	20021003	WO 2002-US9273	20020325
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2441500	A1	20021003	CA 2002-2441500	20020325
AU 2002309516	A1	20021008	AU 2002-309516	20020325
EP 1372844	A1	20040102	EP 2002-736516	20020325
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004530540	T	20041007	JP 2002-575118	20020325
AU 2002367891	A1	20031202	AU 2002-367891	20020503
MX 2003PA08644	A	20060309	MX 2003-PA8644	20030923
PRIORITY APPLN. INFO.:			US 2001-278311P	P 20010323
			US 2001-288680P	P 20010503
			US 2002-360775P	P 20020301
			US 2002-107531	A 20020325
			WO 2002-US9273	W 20020325
			WO 2002-US13989	W 20020503

OTHER SOURCE(S): MARPAT 137:279610

AB A Ru or Os carbene catalyst is made having an imidazolidine (NHC) in the presence of an olefin with the application of energy. The resulting metal

Updated Search

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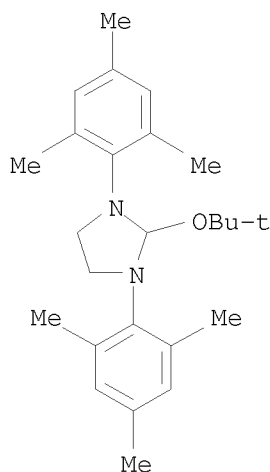
compound has 2 carbene ligands, 1 from the original carbene, the other from the imidazolidine. The imidazolidine has bulky protecting groups in the 2 positions adjacent to the carbene C. The imidazoline is made from the salt in the presence of a base and  $\text{CHCl}_3$ . Thus, 50 g dicyclopentadiene (DCPD) was polymerized using  $\text{Cl}_2(\text{Cp}_3\text{P})_2\text{Ru}:\text{CHCH}:\text{CMe}_2$  (0.00677 g) in the presence of 1,3-dimesityl-2-(trichloromethyl)imidazoline (s-ImesHCCl<sub>3</sub>, 0.0041 g) at a DCPD:Ru:s-ImesHCCl<sub>3</sub> reactant ratio (40,000:1:1) by heating the mixture to 49° to give poly(dicyclopentadiene).

IT 340810-49-3P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(ligand; high activity metal catalysts having a thermally activated protected N-heterocyclic carbene ligand for olefins)

RN 340810-49-3 HCAPLUS

CN Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 87 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:504766 HCAPLUS

DOCUMENT NUMBER: 137:78944

TITLE: Preparation of aryloxazolones as antibacterials.

INVENTOR(S): Natesan, Selvakumar; Das, Jagattaran; Iqbal, Javed; Magadi, Sitaram Kumar; Mamidi, Naga Venkata Srinivasa Rao; Ramanujam, Rajagopalan; Sundarababu, Baskaran; Lohray, Braj Bhushan

PATENT ASSIGNEE(S): Dr. Reddy's Research Foundation, India; Dr. Reddy's Laboratoties Ltd.

SOURCE: PCT Int. Appl., 158 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

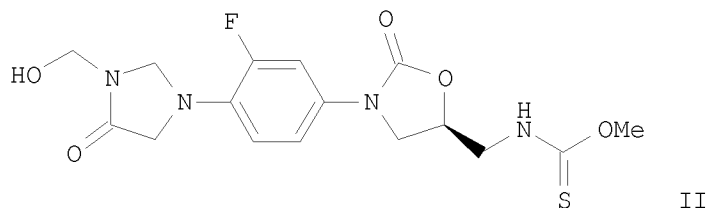
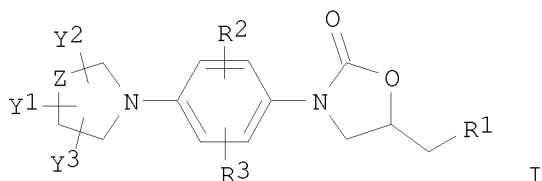
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

Updated Search

10501317

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002051819	A2	20020704	WO 2001-IN227	20011226
WO 2002051819	A3	20021205		
WO 2002051819	A9	20030807		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IN 2000MA01124	A	20050304	IN 2000-MA1124	20001226
CA 2433138	A1	20020704	CA 2001-2433138	20011226
AU 2002226669	A1	20020708	AU 2002-226669	20011226
EP 1345913	A2	20030924	EP 2001-995805	20011226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
HU 2003002580	A2	20031128	HU 2003-2580	20011226
EE 200300254	A	20031215	EE 2003-254	20011226
BR 2001016571	A	20040302	BR 2001-16571	20011226
JP 2004525876	T	20040826	JP 2002-552914	20011226
CN 1656083	A	20050817	CN 2001-822421	20011226
NZ 526716	A	20050826	NZ 2001-526716	20011226
NO 2003002926	A	20030825	NO 2003-2926	20030625
MX 2003PA05822	A	20040504	MX 2003-PA5822	20030625
ZA 2003004945	A	20040927	ZA 2003-4945	20030625
BG 108022	A	20040930	BG 2003-108022	20030722
PRIORITY APPLN. INFO.:			IN 2000-MA1124	A 20001226
			IN 2001-MA15	A 20010104
			WO 2001-IN227	W 20011226
OTHER SOURCE(S):		MARPAT 137:78944		
GI				



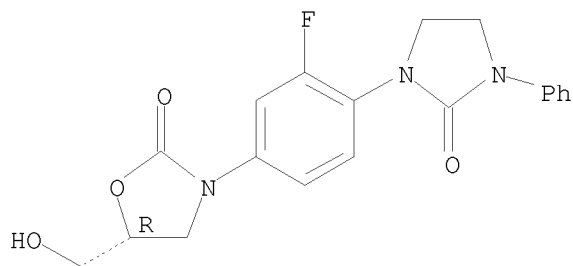
AB Title compds. [I; R1 = halo, N3, SCN, SH, OR4, NHR4, N(R4)2; R4 = H, (substituted) acyl, thioacyl, alkoxycarbonyl, cycloalkoxythiocarbonyl, alkenyloxy carbonyl, alkenylcarbonyl, aryloxy carbonyl, alkoxythiocarbonyl, alkenyloxythiocarbonyl, aryloxythiocarbonyl, COCOA, COCOAr, COCOAlk, COCOArO, CS2A, CSNH2, CSNHA, CSNA2, CSNHak, CSCOAlk, CSCOArO, CSO2CA, CSCSA, CSCSAr, thiomorpholinylthiocarbonyl, pyrrolidinylthiocarbonyl; A = alkyl; Ar = aryl; Alk = alkoxy; Ak = alkenyl; R2, R3 = H, halo, alkyl, haloalkyl, cyano, nitro, SRa, NRa, ORa; Ra = (substituted) alkyl, haloalkyl; Z = S, O, CH, NRb; Rb = H, (substituted) alkyl, alkenyl, cycloalkyl, alkoxy, aryl, aralkyl, aryloxy, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, aryloxy carbonyl; Y1 = O, S; Y2, Y3 = H, halo, cyano, NO2, formyl, OH, amino, O, S, (substituted) alkyl, hydroxyalkyl, alkoxyalkyl, alkoxycarbonyl, carboxyalkyl, alkylsulfonyl, alkylcarbonylaminoalkyl, arylcarbonylaminoalkyl, alkylcarbonyloxyalkyl, aminoalkyl, monoalkylamino, dialkylamino, arylamino, alkoxy, aryl, aryloxy, aralkyl, heteroaryl, heteroaralkyl, heterocyclyl heterocycloalkyl; adjacent Y2Y3 form a (substituted) 5-6 membered aromatic or nonarom. cyclic structure, optionally containing 1-2 heteroatoms], were prepared Thus, title compound (II) (general preparation given) showed a min. inhibitory concentration of 0.25 µg/mL against *Staphylococcus aureus* 019 MRSA.

IT 439902-74-6P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of aryloxazolones as antibacterials)

RN 439902-74-6 HCAPLUS

CN 2-Oxazolidinone, 3-[3-fluoro-4-(2-oxo-3-phenyl-1-imidazolidinyl)phenyl]-5-(hydroxymethyl)-, (5R)- (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 88 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:452021 HCAPLUS

DOCUMENT NUMBER: 138:38921

TITLE: Chemistry of free cyclic vicinal tricarbonyl compounds ('1,2,3-triones'). Part 2. Redox reactions of 1,2,3-triones with ene-1,2-diols ('reductones'), 2-alkoxy-ene-1-ols, ene-1,2-diamines, and related species

AUTHOR(S): Schank, Von Kurt; Bouillon, Guenter; Fuenfrocken, Michael; Lick, Carlo; Lieder, Robert

CORPORATE SOURCE: Fachrichtung Organische Chemie, Universitaet des

10501317

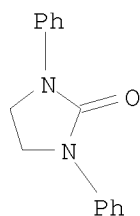
SOURCE: Saarlandes, Saarbruecken, D-66041, Germany  
Helvetica Chimica Acta (2002), 85(5), 1295-1326  
CODEN: HCACAV; ISSN: 0018-019X  
PUBLISHER: Verlag Helvetica Chimica Acta  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 138:38921  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Midstanding carbonyl groups of cyclic 1,2,3-triones I possess outstanding electrophilic (electron-pair accepting) as well as oxidizing (one-electron accepting) properties. Their reactions with selected electron-rich carbon-carbon double bonds as efficient nucleophiles (.SCRIPTA.N reactions) and as efficient reducing agents (SET (single electron transfer) reactions) are studied. In a few cases, short-lived charge-transfer colors could be observed. Particularly, free didehydro-5,6-O-isopropyliden-L-ascorbic acid (II), its O,C-adduct III to 5,6-O-isopropylidene-L-ascorbic acid, and - via an independent pathway - the ostensible C,C-dimer IV of mono-dehydrodimerone reductone were prepared. Intermediate radical anions I<sup>•-</sup> can be considered to be ideal representatives of dicapto-dative radicals. Novel large-scale syntheses of 3,4-dihydroxyfuran-2(5H)-one (V) and of its vicinal trione VI are presented.

IT 728-24-5P, 1,3-Diphenylimidazolidin-2-one  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and redox reactions of 1,2,3-triones with enediols (reductones), alkoxyenols, enediamines, and related species)

RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 141 THERE ARE 141 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 89 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2002:335118 HCAPLUS  
DOCUMENT NUMBER: 137:62902  
TITLE: Pd-Catalyzed Intermolecular Amidation of Aryl Halides: The Discovery that Xantphos Can Be Trans-Chelating in a Palladium Complex

Updated Search

10501317

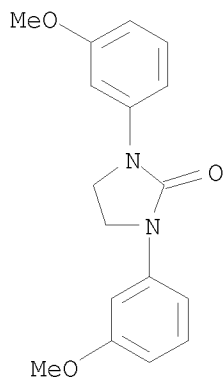
AUTHOR(S): Yin, Jingjun; Buchwald, Stephen L.  
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of  
Technology, Cambridge, MA, 02139, USA  
SOURCE: Journal of the American Chemical Society (2002),  
124(21), 6043-6048  
CODEN: JACSAT; ISSN: 0002-7863  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 137:62902

AB A general method for the intermol. coupling of aryl halides and amides  
using a Xantphos/Pd catalyst is described. This system displays good  
functional group compatibility, and the desired C-N bond forming process  
proceeds in good to excellent yields with 1-4 mol % of the Pd catalyst.  
Addnl., the arylation of sulfonamides, oxazolidinones, and ureas is  
reported. The efficiency of these transformations was found to be highly  
dependent on reaction concns. and catalyst loadings. A Pd complex  
resulting from oxidative addition of 4-bromobenzonitrile,  
(Xantphos)Pd(4-cyanophenyl)(Br), was prepared in one step from Xantphos,  
Pd2(dba)3, and the aryl bromide. The complex proved to be an active  
catalyst for the coupling between 4-bromobenzonitrile and benzamide.  
X-ray crystallog. anal. revealed a rare trans-chelating  
bisphosphine-Pd(II) structure with a large bite angle of 150.7°.

IT 439253-50-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(Pd-catalyzed intermol. amidation of aryl halides)

RN 439253-50-6 HCAPLUS

CN 2-Imidazolidinone, 1,3-bis(3-methoxyphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 90 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2002:241346 HCAPLUS  
DOCUMENT NUMBER: 136:279203  
TITLE: Substituted phenyl derivatives, their preparation and  
use  
INVENTOR(S): Dahl, Bjarne H.; Christophersen, Palle  
PATENT ASSIGNEE(S): Neurosearch A/S, Den.  
SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S.

Updated Search

10501317

Ser. No. 837,166.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002037905	A1	20020328	US 2001-923458	20010808
US 6696475	B2	20040224		
CA 2285424	A1	19981029	CA 1998-2285424	19980421
WO 9847879	A1	19981029	WO 1998-DK162	19980421
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9869196	A	19981113	AU 1998-69196	19980421
AU 728520	B2	20010111		
EP 977741	A1	20000209	EP 1998-914851	19980421
EP 977741	B1	20030903		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 9902593	T2	20000321	TR 1999-2593	19980421
BR 9808938	A	20000801	BR 1998-8938	19980421
NZ 337976	A	20010525	NZ 1998-337976	19980421
JP 2001521532	T	20011106	JP 1998-544759	19980421
SK 282818	B6	20021203	SK 1999-1447	19980421
RU 2197482	C2	20030127	RU 1999-124188	19980421
CN 1118462	B	20030820	CN 1998-804446	19980421
AT 248824	T	20030915	AT 1998-914851	19980421
PT 977741	T	20040130	PT 1998-914851	19980421
ES 2205472	T3	20040501	ES 1998-914851	19980421
CZ 295822	B6	20051116	CZ 1999-3699	19980421
US 6297261	B1	20011002	US 1999-402165	19990930
WO 2000024707	A1	20000504	WO 1999-DK575	19991019
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2003246773	A	20030902	JP 2003-22576	19991019
EP 1514867	A2	20050316	EP 2004-105861	19991019
EP 1514867	A3	20050323		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, MK, CY, AL				
MX 9909689	A	20000331	MX 1999-9689	19991021
HK 1026909	A1	20040416	HK 2000-106125	20000927
US 2002032210	A1	20020314	US 2001-837166	20010419

Updated Search

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US 6706749  
PRIORITY APPLN. INFO.:

B2 20040316

DK 1997-452	A 19970422
WO 1998-DK162	W 19980421
DK 1998-1362	A 19981022
US 1999-402165	A2 19990930
WO 1999-DK575	A1 19991019
US 2001-837166	A2 20010419
EP 1999-950505	A3 19991019
JP 2000-578279	A3 19991019

OTHER SOURCE(S): MARPAT 136:279203  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. [I; 1 of R1-R3 = acidic functional group having pKa < 8 or a group convertible in vivo to such a group; R4, R5 and the others of R1-R3 = independently H, alkyl, alkoxy, OH, halo, CF3, cyano, NO2, amino, etc.; Y = C(X)NR0, NR0C(X)NR00, etc.; R0, R00 = independently H, alkyl; X = O, S; R11-R15 = independently H, alkyl, alkoxy, OH, halo, CF3, cyano (substituted) aryl, heteroaryl, phenylamino, etc.] were prepared Thus, 3-Trifluoromethylphenyl isocyanate and 2-aminobenzoic acid were stirred in PhMe to give N-3-trifluoromethylphenyl, N'-2-carboxyphenyl urea (II). The compds. are useful as chloride channel blockers. N-3-trifluoromethylphenyl-N'-[4'-(dimethylsulfamoyl)-2-(1H-tetrazol-5-yl)-4-biphenyl]urea (III) blocked erythrocyte chloride channels with KD = 0.3  $\mu$ M.

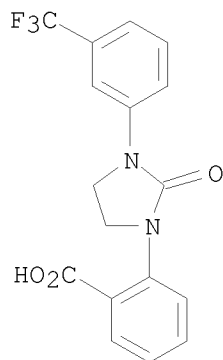
IT 265647-05-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diarylureas and related compds. as chloride channel blockers)

RN 265647-05-0 HCAPLUS

CN Benzoic acid, 2-[2-oxo-3-[3-(trifluoromethyl)phenyl]-1-imidazolidinyl]- (CA INDEX NAME)



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L4 ANSWER 91 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:157442 HCAPLUS

DOCUMENT NUMBER: 137:20115

TITLE: Luminescence of extended and folded N,N'-diaryllureas

AUTHOR(S): Lewis, Frederick D.; Kurth, Todd L.; Liu, Weizhong

CORPORATE SOURCE: Department of Chemistry, Northwestern University,

Evanston, IL, 60208-3113, USA

SOURCE: Photochemical & Photobiological Sciences (2002), 1(1), 30-37

CODEN: PPSHCB; ISSN: 1474-905X

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:20115

AB The relation between mol. structure and luminescence of secondary and tertiary N,N'-diaryllureas (aryl = Ph, 2-naphthyl, 2-anthryl, and pyren-1-yl) were studied at 77 K and at room temperature in the glass-forming solvent methylTHF. The secondary diaryllureas possess planar extended structures, whereas the tertiary diaryllureas possess folded structures in which the aryl groups are face-to-face. The secondary and tertiary diphenyllureas display broad, weak fluorescence attributed to an  $n, \pi^*$  singlet state at low temperature and are nonfluorescent at room temperature

The other

secondary diaryllureas are strongly fluorescent both at 77 K and at room temperature. Their fluorescence resembles that of the parent arene and is assigned to a lowest  $\pi, \pi^*$  singlet state. The fluorescence of the other tertiary diaryllureas is similar to that of the secondary diaryllureas at 77 K, but is broad and red shifted in fluid solution, as a consequence of intramol. excimer formation. The properties of these novel intramol. excimers are compared with those of 1,3-diaryllalkanes and paracyclophanes.

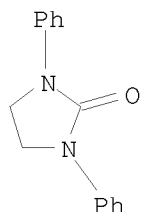
IT 728-24-5P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(Luminescence of extended and folded N,N'-diaryllureas)

RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 92 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:6386 HCAPLUS

DOCUMENT NUMBER: 136:69731

TITLE: Preparation of N-phenylthiophenecarboxamidines and

Updated Search

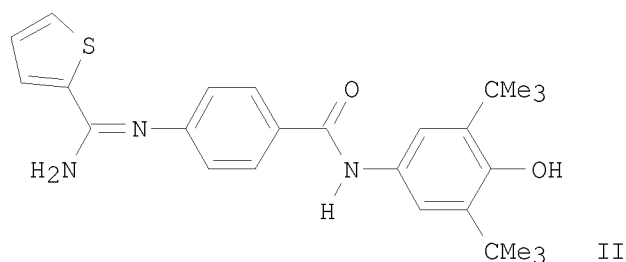
10501317

analogs as NO synthase and lipid peroxidation  
inhibitors  
INVENTOR(S): Chabrier de Lassauniere, Pierre Etienne; Auvin, Serge;  
Bigg, Dennis; Auguet, Michel; Harnett, Jeremiah  
PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications  
Scientifiques (S.C.R.A.S.), Fr.  
SOURCE: U.S., 63 pp., Cont.-in-part of U. S. Ser. No. 381,749.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 4  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6335445	B1	20020101	US 1999-456205	19991207
FR 2761066	A1	19980925	FR 1997-3528	19970324
FR 2761066	B1	20001124		
FR 2764889	A1	19981224	FR 1997-7701	19970620
FR 2764889	B1	20000901		
WO 9842696	A1	19981001	WO 1998-FR288	19980216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6340700	B1	20020122	US 1999-381749	19990922
US 2002007062	A1	20020117	US 2001-882264	20010615
US 6630461	B2	20031007		
US 2002045753	A1	20020418	US 2001-945782	20010904
US 6599903	B2	20030729		
US 2002042511	A1	20020411	US 2001-953682	20010917
US 6586454	B2	20030701		
US 2003078420	A1	20030424	US 2002-191950	20020709
US 6809088	B2	20041026		
US 2005043397	A1	20050224	US 2004-898916	20040726
US 7122535	B2	20061017		
US 2005187272	A1	20050825	US 2005-105291	20050413
IN 2006DE01211	A	20071123	IN 2006-DE1211	20060517
PRIORITY APPLN. INFO.:			FR 1997-3528	A 19970324
			FR 1997-7701	A 19970620
			WO 1998-FR288	W 19980216
			US 1999-381749	A2 19990922
			IN 1998-DE599	A3 19980309
			WO 1998-FR1250	W 19980615
			US 1999-456205	A3 19991207
			US 2001-882264	A3 20010615
			US 2002-191950	A3 20020709
			US 2004-898916	A3 20040726

OTHER SOURCE(S): MARPAT 136:69731  
GI

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AB RZZ1Z2Z3N:C(NH2)R1 [I; R = H, (un)substituted C6H4OR3, indolyl, etc.; R1 = alkyl or (un)substituted (hetero)aryl; R3 = H, alkyl, etc.; Z = bond, CO, alkylene(carbonyl), CONH, etc.; Z1 = bond or heterocyclylene; Z2 = bond, alkylene(oxy), etc.; Z3 = (un)substituted phenylene] were prepared Thus, 4-(O2N)C6H4NH2 was amidated by 3,5-di-tert-butyl-4-hydroxybenzoic acid and the reduced product amidated by S-methyl-2-thiophenethiocarboximide hydroiodide to give title compound II. Data for biol. activity of I were given.

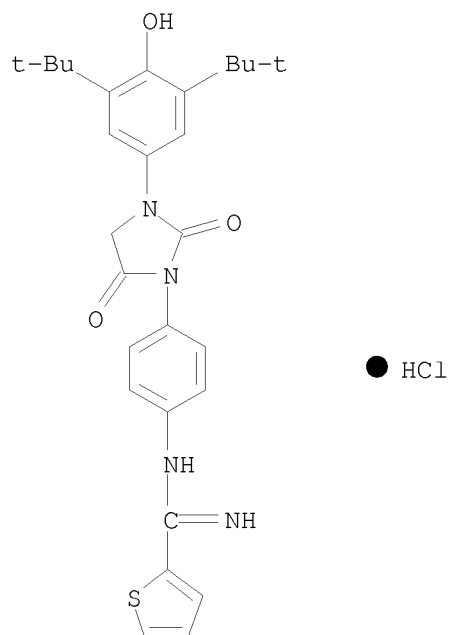
IT 218943-85-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-phenylthiophenecarboxamidines and analogs as NO synthase and lipid peroxidn. inhibitors)

RN 218943-85-2 HCAPLUS

CN 2-Thiophenecarboximidamide, N-[4-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2,5-dioxo-1-imidazolidinyl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



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REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 93 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:890911 HCAPLUS

DOCUMENT NUMBER: 136:309458

TITLE: Some reactions of ynehydrazines with isocyanates:  
[2+2]- and [4+2]cycloadditions,  
(hydrazinoethylnyl)metallation

AUTHOR(S): Himbert, Gerhard; Gerulat, Oliver

CORPORATE SOURCE: Fachbereich Chemie, Universitat Kaiserslautern,  
Kaiserslautern, D-67663, Germany

SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences  
(2001), 56(11), 1196-1204  
CODEN: ZNBSEN; ISSN: 0932-0776

PUBLISHER: Verlag der Zeitschrift fuer Naturforschung

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 136:309458

AB The (silylethynyl)- and the (tolylethynyl)-hydrazines react with aryl isocyanates and arylsulfonyl isocyanates to form the corresponding substituted 3-arylimino-(or arylsulfonylimino-) 1,1,2-trimethyl-5-oxopyrazolidinium-4-ides. The silyl group in the 4-position can be replaced by a H atom (formation of desilylated 5-oxopyrazolidinium-4-ides). Heating of 3-(p-chlorophenylimino)-1,1,2-trimethyl-5-oxopyrazolidinium-4-ide in toluene induced the unequivocal transformation of the betaine to an isomer, the spectroscopic data of which are in concordance with those of the 4-quinolone derivative. Aryl isocyanates react in a [4+2]cycloaddn. with (silylethynyl)hydrazine to furnish the 1,3-oxazin-4-ones. The stannylated ynehydrazine adds the cumulenenic system of an p-chlorophenyl isocyanate (I) across the Csp-Sn single bond, and Me<sub>3</sub>SnOC≡CNMeNMe<sub>2</sub> is isolated. With two mols. of I the hydantoin derivative is formed.

IT 410536-96-8P

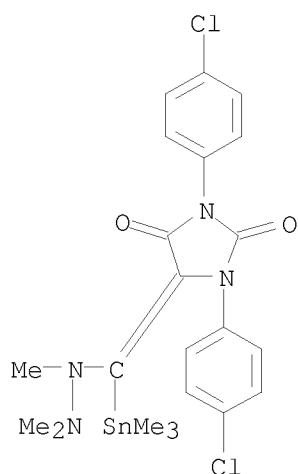
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation stannyl yneamine and hydantoin by reactions of ynehydrazine with isocyanate)

RN 410536-96-8 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(4-chlorophenyl)-5-  
[(trimethylhydrazino)(trimethylstannyl)methylene]- (9CI) (CA INDEX NAME)

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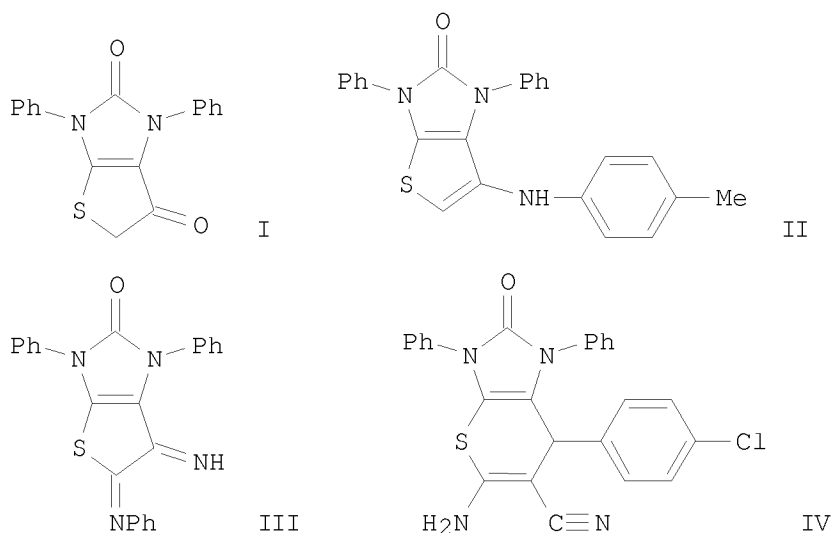


REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 94 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:764123 HCAPLUS  
DOCUMENT NUMBER: 136:167325  
TITLE: Some cyclization reactions with 4-thiohydantoin:  
synthesis of some novel thiopyranoimidazoles,  
thienoimidazoles and imidazoquinolines and some metal  
complexes with biological interest  
AUTHOR(S): El-Sharief, A. M. Sh.; Hussein, A. M.; El-Gaby, M. S.  
A.; Atalla, A. A.; Ahmed, A. A.  
CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar  
University, Nasr City, Egypt  
SOURCE: Phosphorus, Sulfur and Silicon and the Related  
Elements (2001), 170, 47-63  
CODEN: PSSLEC; ISSN: 1042-6507  
PUBLISHER: Gordon & Breach Science Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 136:167325  
GI

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AB Cyclocondensation of 1,3-diphenyl-4-thiohydantoin with ClCH<sub>2</sub>CO<sub>2</sub>H, 2-chloroacetanilides, and cyanothioformamides gave thieno[2,3-d]imidazoles, e.g. I, II, and III.  $\alpha,\beta$ -Unsatd. nitriles and anthranilic acids reacted with 1,3-diphenyl-4-thiohydantoin to give thiopyrano[2,3-d]imidazoles, e.g. IV, and imidazo[4,5-b]quinolines. Some metal complexes of these compds. were prepared and the antimicrobial activity of some selected compds. was also reported.

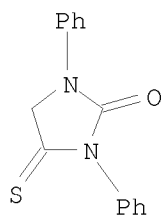
IT 74331-44-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of bactericidal thiopyranoimidazole, thienoimidazoles, and imidazoquinolines via cyclization reactions of diphenylthiohydantoin)

RN 74331-44-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl-4-thioxo- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 95 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:701721 HCAPLUS

DOCUMENT NUMBER: 136:70188

TITLE: Polyhydrazides based upon aromatic dihydrazines

AUTHOR(S): Caraculacu, A. A.; Scortanu, E.; Hitruc, E. G.

CORPORATE SOURCE: Institute of Macromolecular Chemistry "P. Poni", Iasi,

Updated Search

10501317

SOURCE: 6600, Rom.  
European Polymer Journal (2001), 37(12), 2491-2497  
CODEN: EUPJAG; ISSN: 0014-3057  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The paper deals with the study of the polycondensation reaction between two aromatic dihydrazines (bis(4-hydrazinophenyl)methane (BHPM) and bis(4-hydrazinophenyl)sulfone) and two diacyl chlorides (1,3-bis(4-chloroformyl-phenyl) parabanic acid and isophthaloyl chloride). The possibility of the side reaction during the polymer synthesis was studied by using model reactions and anal. by high performance liquid chromatog. The benzoyl Ph hydrazine hydrochloride complex was obtained as a relatively stable intermediate. By using a weak hydrogen chloride acceptor like pyridine, a controlled release of hydrogen chloride from this complex was performed and the secondary reactions were considerably reduced. Soluble polymers were so obtained even in the case of the reaction between BHPM and isophthaloyl chloride, which usually produces only insol. products. The thermal properties of the polymers were studied by thermogravimetric analyses and differential scanning calorimetry methods.

IT 383419-39-4P, 1,3-Bis(4-chloroformylphenyl)parabanic acid-bis(4-hydrazinophenyl)methane copolymer  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(soluble polyhydrazides based upon aromatic dihydrazines)

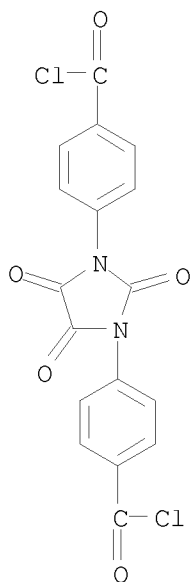
RN 383419-39-4 HCAPLUS

CN Benzoyl chloride, 4,4'-(2,4,5-trioxo-1,3-imidazolidinediyl)bis-, polymer with 1,1'-(methylenedi-4,1-phenylene)bis[hydrazine] (9CI) (CA INDEX NAME)

CM 1

CRN 119080-02-3

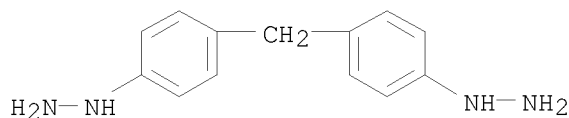
CMF C17 H8 C12 N2 O5



10501317

CM 2

CRN 23592-50-9  
CMF C13 H16 N4



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 96 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:604717 HCAPLUS

DOCUMENT NUMBER: 135:371256

TITLE: Comparative investigation of ruthenium-based metathesis catalysts bearing N-heterocyclic carbene (NHC) ligands

AUTHOR(S): Furstner, Alois; Ackermann, Lutz; Gabor, Barbara; Goddard, Richard; Lehmann, Christian W.; Mynott, Richard; Stelzer, Frank; Thiel, Oliver R.

CORPORATE SOURCE: Max-Planck-Institut fur Kohlenforschung, Mulheim/Ruhr, 45470, Germany

SOURCE: Chemistry--A European Journal (2001), 7(15), 3236-3253  
CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:371256

AB Exchange of one PCy<sub>3</sub> unit of the classical Grubbs catalyst by N-heterocyclic carbene (NHC) ligands leads to second-generation metathesis catalysts of superior reactivity and increased stability. Several complexes of this type have been prepared and fully characterized, six of them by X-ray crystallog. These include the unique chelate complexes in which the NHC- and the Ru=CR entities are tethered to form a metallacycle. A particularly favorable design feature is that the reactivity of such catalysts can be easily adjusted by changing the electronic and steric properties of the NHC ligands. The catalytic activity also strongly depends on the solvent used; NMR investigations provide a tentative explanation of this effect. Applications of the second-generation catalysts to ring closing alkene metathesis and intramol. enyne cycloisomerization reactions provide insights into their catalytic performance. From these comparative studies it is deduced that no single catalyst is optimal for different types of applications. The search for the most reactive catalyst for a specific transformation is facilitated by IR thermog. allowing a rapid and semi-quant. ranking among a given set of catalysts.

IT 373640-76-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and comparative investigation of ruthenium-based metathesis catalysts bearing N-heterocyclic carbene ligands)

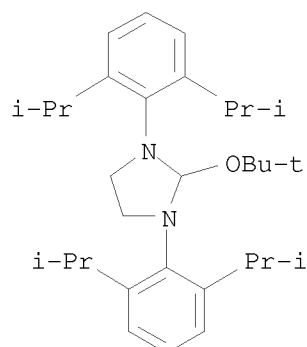
RN 373640-76-7 HCAPLUS

Updated Search



10501317

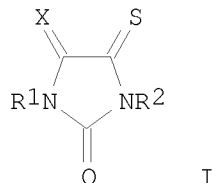
CN Imidazolidine, 1,3-bis[2,6-bis(1-methylethyl)phenyl]-2-(1,1-dimethylethoxy)- (CA INDEX NAME)



REFERENCE COUNT: 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 97 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:288825 HCAPLUS  
DOCUMENT NUMBER: 134:305302  
TITLE: Tyrosine phosphatase inhibitors as antiallergic drugs  
INVENTOR(S): Sato, Masakazu; Kobayashi, Yuiko; Hamaguchi, Takuya  
PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2001114689	A	20010424	JP 1999-297000	19991019
PRIORITY APPLN. INFO.: GI			JP 1999-297000	19991019



AB Tyrosine phosphatase inhibitors (I; R1, R2 = Ph, halogen substituted Ph, naphthyl; X = O, imino) are claimed as antiallergic drugs by inhibiting CD45 antigen-activated T cells and mast cell.  
IT 71342-31-9P

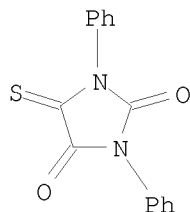
Updated Search

10501317

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(tyrosine phosphatase inhibitors as antiallergic drugs)

RN 71342-31-9 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-thioxo- (CA INDEX NAME)



L4 ANSWER 98 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:267565 HCAPLUS

DOCUMENT NUMBER: 135:46117

TITLE: Some reactions with p-ethoxyphenylcyanothioformamide: synthesis of pyrrole, pyrrolo[2,3-c]pyrrole, imidazo[4,5-b]quinoxalines, and hydantoin derivatives

AUTHOR(S): Ammar, Y. A.; El-Sharief, A. M. Sh.; Ali, M. M.; Mohamed, Y. A.; Mohamed, Sh. I.

CORPORATE SOURCE: Chemistry Department, Faculty of Science, Al-Azhar University, Nasr City, 11884, Egypt

SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (2000), 166, 173-185

CODEN: PSSLEC; ISSN: 1042-6507

PUBLISHER: Gordon & Breach Science Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:46117

AB P-Ethoxyphenylcyanothioformamide (I) was reacted with  $\alpha,\beta$ -unsatd. ketones and N-p-chlorophenylmaleimide to furnish pyrrole and pyrrolo[2,3-c]pyrrole-4,6-diones. Also, interaction of I with anthranilic acid and o-phenylenediamine produced 3-(4'-ethoxyphenyl)-2-thioxoquinazolin-4-one and 2-thioxobenzimidazoles. Reaction of I with iso(thio)cyanates gave 5-imino-4-thioxoimidazolidinones. The latter were subjected to some reagents such as hydrazine hydrate, thiosemicarbazide, o-phenylenediamines, hydrogen sulfide and HCl to give 5-hydrazono, 4-thiosemicarbazono, and thiohydantoin derivs.

IT 343944-56-9P

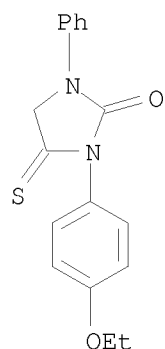
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(reactions of (ethoxyphenyl)cyanothioformamide)

RN 343944-56-9 HCAPLUS

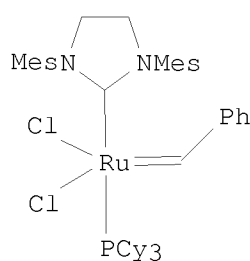
CN 2-Imidazolidinone, 3-(4-ethoxyphenyl)-1-phenyl-4-thioxo- (CA INDEX NAME)

10501317

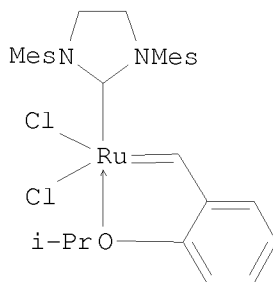


REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 99 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2001:186459 HCAPLUS  
DOCUMENT NUMBER: 135:5692  
TITLE: Highly selective cross metathesis with acrylonitrile using a phosphine free Ru-complex  
AUTHOR(S): Randl, Stefan; Gessler, Simon; Wakamatsu, Hideaki; Blechert, Siegfried  
CORPORATE SOURCE: Institut für Organische Chemie, Technische Universität Berlin, Berlin, 10623, Germany  
SOURCE: Synlett (2001), (3), 430-432  
CODEN: SYNLES; ISSN: 0936-5214  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 135:5692  
GI



I



II

AB The exchange of the PCy3 ligand in complex I by an o-isopropylphenyl ether ligand leads to the extremely stable and highly selective initiator II for cross metathesis reactions. For the 1st time, Ru-catalyzed cross coupling with acrylonitrile can be performed in good yields.  
IT 340810-49-3  
RL: RCT (Reactant); RACT (Reactant or reagent)

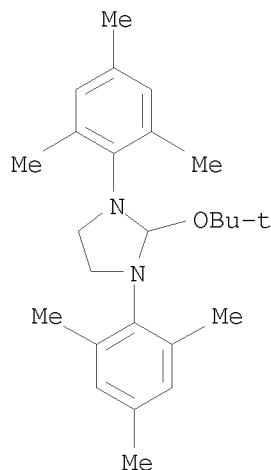
Updated Search

10501317

(selective cross metathesis with acrylonitrile using phosphine free  
Ru-complex)

RN 340810-49-3 HCAPLUS

CN Imidazolidine, 2-(1,1-dimethylethoxy)-1,3-bis(2,4,6-trimethylphenyl)- (CA  
INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 100 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:879937 HCAPLUS

DOCUMENT NUMBER: 134:252289

TITLE: Synthesis and crystal structure of

1,3-bis(p-chlorophenyl)imidazolidinetrione

AUTHOR(S): Soriano-Garcia, M.; Chavez, G. Trujillo; Ramos, F.  
Martinez; Perez, A. E. Dominguez; Hernandez, G.  
Aguirre

CORPORATE SOURCE: Departamento de Bioestructura, Instituto de Quimica,  
UNAM, Mexico, 04510, Mex.

SOURCE: Revista Latinoamericana de Quimica (2000), 28(2),  
65-71

CODEN: RLAQA8; ISSN: 0370-5943

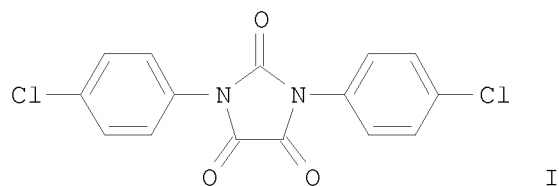
PUBLISHER: Laboratorios Mixim S.A de C.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:252289

GI



I

Updated Search

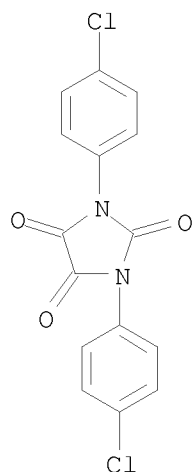
10501317

AB The preparation and x-ray anal. of the title compound (I) are reported. The central imidazolidinetrione ring and the aryl rings at N(1) and N(3) are planar. The dihedral angles between the aryl ring at N(1)/imidazolidine ring; aryl ring at N(3)/imidazolidine ring and between aryl rings are 41.9(3), 38.4(3) and 22.3(4)°, resp. The mols. in the crystal are packed at normal van der Waals distances.

IT 81657-50-3P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and x-ray anal. of)

RN 81657-50-3 HCAPLUS

CN Imidazolidinetrione, bis(4-chlorophenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 101 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:748500 HCAPLUS

DOCUMENT NUMBER: 134:86194

TITLE: 1,3-Dipolar cycloadditions, Part 118. The astounding chemistry of a 2-amino-1,2-dihydroisoquinoline derivative

AUTHOR(S): Durst, Toni; Finke, Jurgen A.; Huisgen, Rolf; Temme, Robert

CORPORATE SOURCE: Institut fur Organische Chemie der Universitat Munchen, Munchen, D-81377, Germany

SOURCE: Helvetica Chimica Acta (2000), 83(9), 2363-2382  
CODEN: HCACAV; ISSN: 0018-019X

PUBLISHER: Verlag Helvetica Chimica Acta

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:86194

AB The cycloadducts of isoquinolinium N-Ph imide with C:C bonds are derivs. of 2-amino-1,2-dihydroisoquinoline. Their N $\beta$ -vinylphenylhydrazine system is amenable to an acid-catalyzed [3,3]-sigmatropic shift; the formation of pentacyclic amins is shown. A di-Me maleate adduct is

Updated Search

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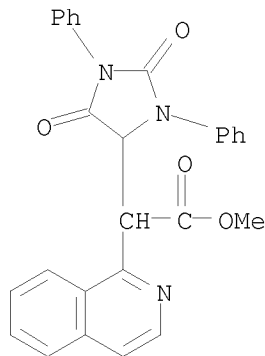
exceptional by being converted on treatment with acid to bright-yellow crystals, C<sub>24</sub>H<sub>22</sub>N<sub>2</sub>O<sub>6</sub> (addnl. C<sub>3</sub>H<sub>2</sub>O<sub>2</sub>). X-Ray crystal-structure anal. and NMR spectra reveal a structure, and mechanistic studies indicated an initial  $\beta$ -elimination at the N-N bond; this step is followed by a retro-Mannich-type cleavage that gives Me isoquinoline-1-acetate and Me 2-(phenylimino)acetate. In the second act of the drama, electrophilic attack on the ene-hydrazine group furnishes the product by a polystep intramol. redox reaction. All rate consts. must be fine-tuned in this reaction cascade to give the product in yields of up to 78%. Interception and model expts. confirmed the above pathway. A byproduct, C<sub>33</sub>H<sub>31</sub>N<sub>3</sub>O<sub>6</sub>, arises from an acid-catalyzed dimerization and subsequent elimination.

IT 316791-00-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(reactions of aminodihydroisoquinoline derivs. and related compds.)

RN 316791-00-1 HCAPLUS

CN 1-Isoquinolineacetic acid,  $\alpha$ -(2,5-dioxo-1,3-diphenyl-4-imidazolidinyl)-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 102 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:290984 HCAPLUS

DOCUMENT NUMBER: 132:308142

TITLE: Preparation of diarylureas and related compounds as chloride channel blockers.

INVENTOR(S): Dahl, Bjarne H.; Christophersen, Palle

PATENT ASSIGNEE(S): Neurosearch A/s, Den.

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024707	A1	20000504	WO 1999-DK575	19991019
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,				

Updated Search

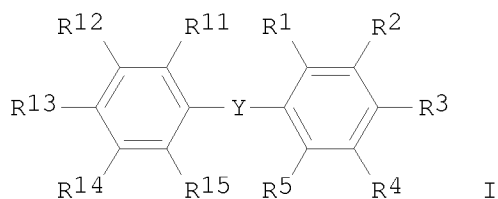
10501317

IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,  
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW  
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2342626	A1	20000504	CA 1999-2342626	19991019
AU 9963259	A	20000515	AU 1999-63259	19991019
AU 759275	B2	20030410		
BR 9914638	A	20010703	BR 1999-14638	19991019
EP 1123274	A1	20010816	EP 1999-950505	19991019
EP 1123274	B1	20041229		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200101126	T2	20010921	TR 2001-1126	19991019
HU 2001003673	A2	20020228	HU 2001-3673	19991019
HU 2001003673	A3	20030328		
ZA 200101824	A	20020305	ZA 2001-1824	19991019
EE 200100185	A	20020815	EE 2001-185	19991019
EE 4849	B1	20070615		
JP 2002528432	T	20020903	JP 2000-578279	19991019
JP 3960754	B2	20070815		
JP 2003246773	A	20030902	JP 2003-22576	19991019
NZ 510098	A	20030926	NZ 1999-510098	19991019
RU 2218328	C2	20031210	RU 2001-107853	19991019
AT 286021	T	20050115	AT 1999-950505	19991019
EP 1514867	A2	20050316	EP 2004-105861	19991019
EP 1514867	A3	20050323		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, MK, CY, AL				
PT 1123274	T	20050429	PT 1999-950505	19991019
ES 2235522	T3	20050701	ES 1999-950505	19991019
IN 2001CN00508	A	20050304	IN 2001-CN508	20010410
US 2002032210	A1	20020314	US 2001-837166	20010419
US 6706749	B2	20040316		
NO 2001001956	A	20010420	NO 2001-1956	20010420
KR 799892	B1	20080131	KR 2001-704970	20010420
MX 2001PA04070	A	20010731	MX 2001-PA4070	20010423
US 2002037905	A1	20020328	US 2001-923458	20010808
US 6696475	B2	20040224		
HK 1040699	A1	20061124	HK 2002-102082	20020319
PRIORITY APPLN. INFO.:			DK 1998-1362	A 19981022
			DK 1997-452	A 19970422
			WO 1998-DK162	W 19980421
			US 1999-402165	A2 19990930
			EP 1999-950505	A3 19991019
			JP 2000-578279	A3 19991019
			WO 1999-DK575	W 19991019
			US 2001-837166	A2 20010419
OTHER SOURCE(S):	MARPAT 132:308142			
GI				

Updated Search

10501317

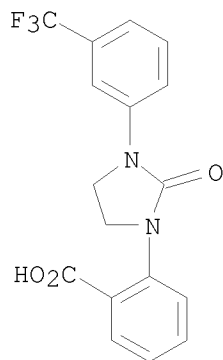


AB Title compds. [I; 1 of R1-R3 = acidic functional group having  $pK_a < 8$  or a group convertible in vivo to such a group; R4, R5 and the others of R1-R3 = H, alkyl, alkoxy, OH, halo, CF<sub>3</sub>, cyano, NO<sub>2</sub>, amino, etc.; Y = C(:X)NR<sub>0</sub>, NR<sub>0</sub>C(:X)NR<sub>00</sub>, etc.; R<sub>0</sub>, R<sub>00</sub> = H, alkyl; X = O, S; R11-R15 = H, alkyl, alkoxy, OH, halo, CF<sub>3</sub>, cyano, (substituted) aryl, heteroaryl, phenylamino, etc.], were prepared. Thus, 3-trifluoromethylphenyl isocyanate and 2-aminobenzoic acid were stirred in PhMe to give N-3-trifluoromethylphenyl-N'-2-carboxyphenyl urea. N-3-trifluoromethylphenyl-N'-[4'-(dimethylsulfamoyl)-2-(1H-tetrazol-5-yl)-4-biphenyl]urea blocked erythrocyte chloride channels with  $K_D = 0.3 \mu M$ .

IT 265647-05-0P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of diarylureas and related compds. as chloride channel blockers)

RN 265647-05-0 HCAPLUS

CN Benzoic acid, 2-[2-oxo-3-[3-(trifluoromethyl)phenyl]-1-imidazolidinyl]-  
(CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 103 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:204020 HCAPLUS

DOCUMENT NUMBER: 133:135688

TITLE: Synthesis and characterization of ylidic and carbenic polymers

AUTHOR(S): Surpateanu, Gheorghe; Pitrel, Olivier; Delpeuch, Laurent; Lungu, Neculai C.; Cazier-Dennin, Francine

Updated Search



10501317

CORPORATE SOURCE: Laboratoire de Synthese Organique et Environnement,  
Maison de la Recherche en Environnement Industriel de  
Dunkerque, Dunkerque, 59140, Fr.  
SOURCE: Iranian Polymer Journal (1999), 8(3), 159-165  
CODEN: IPJOFF; ISSN: 1026-1265  
PUBLISHER: Iran Polymer Institute  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Two bisylides are prepared by treating N-phenacylpyridinium bromide with  
with terephthaloyl dichloride or 1,3-bis(p-chloroformylphenyl)parabanic  
acid. These two bisylides form the corresponding two polycarbenic derivs.  
on thermal or microwave decomposition An ylidic polymer, derived from 4,4'  
dipyridylum diphenylmethylyde and terephthaloyl dichloride, is also  
synthesized. All obtained products were controlled principally by 1H NMR  
spectra. The bisylide decomposition is the first example of the synthesis of  
polycarbenic polymers via ylides.  
IT 286842-64-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and characterization of)  
RN 286842-64-6 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylene(2,3-dibenzoyl-1,4-  
dioxo-2-butene-1,4-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 104 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2000:27391 HCAPLUS  
DOCUMENT NUMBER: 132:166674  
TITLE: New parabanate products by 1,3-dipolar cycloaddition  
reaction ("criss-cross" cycloaddition)  
AUTHOR(S): Caraculacu, Adrian A.; Scortanu, Elena; Caraculacu,  
Georgeta  
CORPORATE SOURCE: Institute of Macromolecular Chemistry "Petru Poni",  
Iasi, 6600, Rom.  
SOURCE: High Performance Polymers (1999), 11(4), 477-482  
CODEN: HPPOEX; ISSN: 0954-0083  
PUBLISHER: Institute of Physics Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB New parabanate products containing 1,3,5,7-tetraazabicyclo[3.3.0]octane-2,6-  
dione are described. The synthesis of  $\alpha,\omega$ -diisocyanato-  
telechelics starting from two diisocyanates having a preformed parabanic  
unit using a [3+2] dipolar cycloaddn. reaction was studied. The obtained  
products were characterized by IR spectroscopy, elemental and  
thermogravimetric anal. and solubility tests. The proposed structure was  
confirmed by anal. data.  
IT 259141-74-7P, Benzaldazine-1,3-bis(3-isocyanato-4-

Updated Search

10501317

methylphenylene)parabanic acid copolymer

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of tetraazabicyclooctanedione-containing polymers by dipolar cycloaddn. of parabanate-containing diisocyanate and benzaldazine)

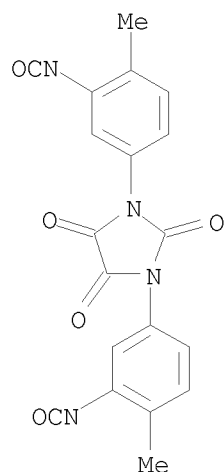
RN 259141-74-7 HCAPLUS

CN Benzaldehyde, (phenylmethylene)hydrazone, polymer with bis(3-isocyanato-4-methylphenyl)imidazolidinetriene (9CI) (CA INDEX NAME)

CM 1

CRN 54518-24-0

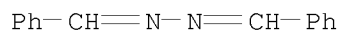
CMF C19 H12 N4 O5



CM 2

CRN 588-68-1

CMF C14 H12 N2



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 105 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:710018 HCAPLUS

DOCUMENT NUMBER: 132:64192

TITLE: Silver(I) ion-mediated desulfurization-cyclization of isothiocyanates with several hydroxy acids and N-substituted amino acids

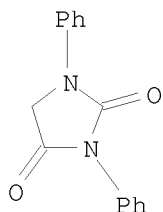
AUTHOR(S): Shibuya, Isao; Goto, Midori; Shimizu, Masao; Yanagisawa, Masaru; Gama, Yasuo

CORPORATE SOURCE: National Institute of Materials and Chemical Research, Tsukuba, 305-8565, Japan

Updated Search

10501317

SOURCE: Heterocycles (1999), 51(11), 2667-2673  
CODEN: HTCYAM; ISSN: 0385-5414  
PUBLISHER: Japan Institute of Heterocyclic Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 132:64192  
AB The title reaction of 2-hydroxy-2-methylpropionic acid with Ph isothiocyanate gave 5,5-dimethyl-3-phenyl-2,4-oxazolidinedione. The structure was determined by x-ray anal., and a reaction pathway was proposed. The reactions of other 2-hydroxy acids with isothiocyanates also gave some 2,4-oxazolidinediones in good yields. 3-Hydroxybutyric acid, salicylic acid, 3-hydroxy-2-naphthoic acid, and 3-hydroxypyridine-2-carboxylic acid afforded the corresponding cyclic products via desulfurization-cyclization with isothiocyanate. N-Substituted amino acids gave several imidazolidine-2,4-diones in the same way.  
IT 3157-03-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(silver(I) ion-mediated desulfurization-cyclization of isothiocyanates with hydroxy acids and N-substituted amino acids)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



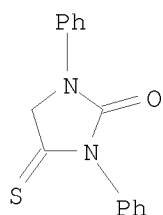
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 106 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1999:639675 HCAPLUS  
DOCUMENT NUMBER: 132:22917  
TITLE: A comparative study of 4-thioxo-(imidazolidines and oxazolidines) and some nucleophilic reagents  
AUTHOR(S): Ei-Sharief, A. M. Sh.; Ammar, Y. A.; Mohamed, Y. A.; Ei-Gaby, M. S. A.  
CORPORATE SOURCE: Chemistry Department, Faculty of Science, AI-Azhar University, Nasr City, Egypt  
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1999), 148, 215-226  
CODEN: PSSLEC; ISSN: 1042-6507  
PUBLISHER: Gordon & Breach Science Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Imidazolidines were treated with amines, H<sub>2</sub>S and o-phenylenediamines to give 4-substituted imino derivs., thiohydantoin and 1-phenyl-3-substituted-1H-imidazo[4,5-b]quinoxaline-2-(3H)-ones, resp. Interaction of oxazolidines with amines, o-phenylenediamines and o-aminophenol caused fission of the oxazole ring.

Updated Search

10501317

IT 74331-44-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reaction of thioxooxazolidines and thioxoimidazolidines  
with nucleophiles)  
RN 74331-44-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl-4-thioxo- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 107 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1999:482039 HCAPLUS  
DOCUMENT NUMBER: 131:117038  
TITLE: Diisocyanates containing hydantoin groups for use in  
polyurethanes  
INVENTOR(S): Graf, Hermann; Rotermund, Udo; Mohrhardt, Gunter  
PATENT ASSIGNEE(S): Basf A.-G., Germany  
SOURCE: Eur. Pat. Appl., 20 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 931791	A1	19990728	EP 1999-101041	19990121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19802547	A1	19990729	DE 1998-19802547	19980123
US 6274759	B1	20010814	US 1999-235019	19990121
PRIORITY APPLN. INFO.:			DE 1998-19802547	A 19980123
OTHER SOURCE(S):	MARPAT 131:117038			

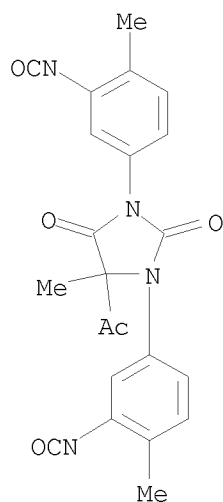
AB The title compds. are prepared without the use of protective groups by the  
reaction of phospholenes of specified structure with diisocyanates.  
Adding 46 g 2,2-dihydro-4,5-dimethyl-2,2,2-trimethoxy-1,3,2-  
dioxaphospholene dropwise to 431 g TDI in CH<sub>2</sub>Cl<sub>2</sub> and refluxing for 24 h  
gave 5-acetyl-1,3-bis(3-isocyanato-4-methylphenyl)-5-methylhydantoin. Use  
of the products in polyurethanes and polyurethane coatings is exemplified.

IT 232265-67-7P  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(diisocyanates containing hydantoin groups for use in polyurethanes)  
RN 232265-67-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-acetyl-1,3-bis(3-isocyanato-4-methylphenyl)-5-

Updated Search

10501317

methyl- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 108 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:437742 HCAPLUS

DOCUMENT NUMBER: 131:214642

TITLE: Polyimides containing 1,4-dithiine units and their corresponding thiophene 2,3,4,5 tetracarboxylimide units

AUTHOR(S): Gaina, C.; Gaina, V.; Sava, M.; Chiriac, C.

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry, Iasi, RO 6600, Rom.

SOURCE: High Performance Polymers (1999), 11(2), 185-195

CODEN: HPPOEX; ISSN: 0954-0083

PUBLISHER: Institute of Physics Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polyimides containing 1,4-dithiine units and corresponding thiophene units were synthesized by the nucleophilic substitution reaction of bis(dichloro-maleimide) arylene derivs. with sodium sulfide. Their structures were confirmed by IR and UV spectroscopy and elemental anal. The polymers were characterized by viscosimetric measurements, softening points and thermogravimetric data.

IT 243126-05-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

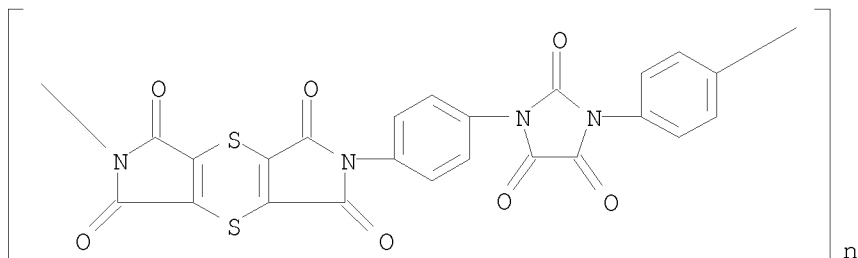
(polyimides containing 1,4-dithiine units and their corresponding thiophene tetracarboxylimide units)

RN 243126-05-8 HCAPLUS

CN Poly[(1,3,5,7-tetrahydro-1,3,5,7-tetraoxo-2H,6H-[1,4]dithiino[2,3-c:5,6-c']dipyrrole-2,6-diyl)-1,4-phenylene(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

10501317



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 109 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:375527 HCAPLUS

DOCUMENT NUMBER: 131:31874

TITLE: Preparation of amidinophenylpropionylindoles and related compounds as thrombin inhibitors.

INVENTOR(S): Heckel, Armin; Walter, Rainer; Soyka, Rainer; Stassen, Jean-Marie; Wienen, Wolfgang; Binder, Klaus

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma KG, Germany

SOURCE: PCT Int. Appl., 173 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

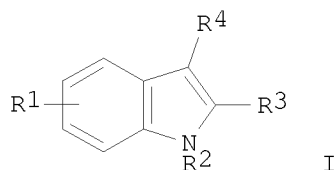
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9928297	A1	19990610	WO 1998-EP7661	19981127
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
DE 19753522	A1	19990610	DE 1997-19753522	19971203
AU 9922671	A	19990616	AU 1999-22671	19981127
PRIORITY APPLN. INFO.:			DE 1997-19753522	A 19971203
			WO 1998-EP7661	W 19981127

OTHER SOURCE(S): MARPAT 131:31874

GI



Updated Search

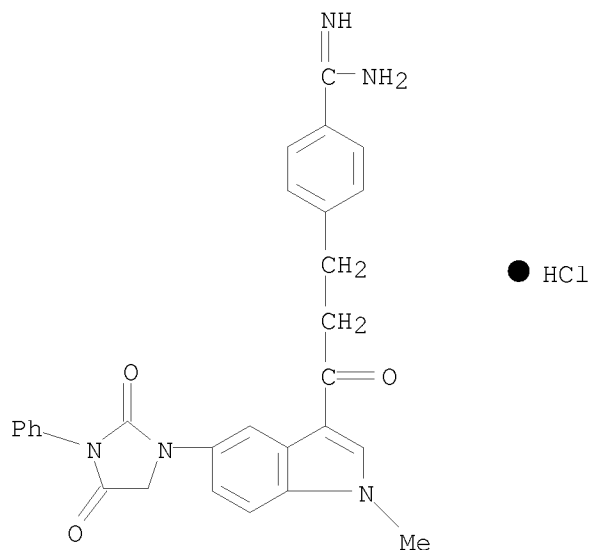
10501317

AB Title compds. [I; R1 = F, Cl, Br, CO2H, aminocarbonyl, aminosulfonyl, amino, group convertible to CO2H in vivo; 1 of R2, R4 = (CO2H- or group convertible to CO2H in vivo-substituted) alkyl, the other = R5A; A = (CO2H- or group convertible to CO2H in vivo-substituted) alkylene, etc.; R5 = R6NHC(:NH)-substituted Ph; R4 = H, alkyl; R6 = H, in vivo-cleavable group], were prepared as antithrombotics with inhibitory activity against serine proteases XII and fibrinogen receptors. Thus, 3-[3-(4-amidinophenyl)propionyl]-1-methylindole-5-carboxylic acid N-(2-carboxyethyl)-N-phenylamide hydrochloride (preparation given) showed a thrombin time ED200 = 0.80  $\mu$ M.

IT 226898-55-1P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of amidinophenylpropionylindoles and related compds. as thrombin inhibitors)

RN 226898-55-1 HCAPLUS

CN Benzenecarboximidamide, 4-[3-[5-(2,4-dioxo-3-phenyl-1-imidazolidinyl)-1-methyl-1H-indol-3-yl]-3-oxopropyl]-, monohydrochloride (9CI) (CA INDEX NAME)



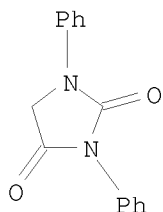
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 110 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1999:348730 HCAPLUS  
DOCUMENT NUMBER: 131:102515  
TITLE: Palladium-catalyzed reactions for the synthesis of fine chemicals, part 10. palladium-catalyzed synthesis of substituted hydantoins-a new carbonylation reaction for the synthesis of amino acid derivatives  
AUTHOR(S): Beller, Matthias; Eckert, Markus; Moradi, Wahed A.; Neumann, Helfried

Updated Search

10501317

CORPORATE SOURCE: Institut fur Organische Katalyseforschung (IfOK) an  
der Universitat Rostock e.V., Rostock, D-18055,  
Germany  
SOURCE: Angewandte Chemie, International Edition (1999),  
38(10), 1454-1457  
CODEN: ACIEF5; ISSN: 1433-7851  
PUBLISHER: Wiley-VCH Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 131:102515  
AB The authors describe a one-pot synthesis of 5-, 3,5- and 1,3,5-substituted  
hydantoins, based on carbonylation of aldehydes in the presence of urea  
derivs., in high yield with excellent chemo- and regioselectivity. A  
mechanism of reaction is postulated. The scope of the multicomponent  
synthesis for hydantoins was shown by preparation of 3-alkyl, -aryl, or -benzyl  
products in high selectivity, or of 1,3,5-trisubstituted hydantoins.  
IT 3157-03-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of using a palladium-catalyzed carbonylation reaction)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

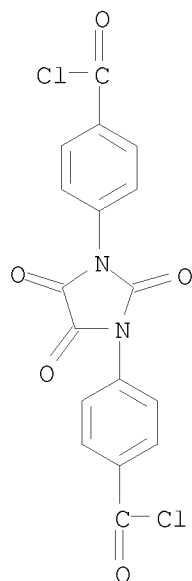
L4 ANSWER 111 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1999:202737 HCAPLUS  
DOCUMENT NUMBER: 130:338473  
TITLE: Polycycloimmonium salt and ylidic polymers.  
Polycondensation between N,N'-dipyridylum  
dicarbethoxymethylide and 1,3-bis(p-  
chloroformylphenyl)parabanic acid  
AUTHOR(S): Surpateanu, G.; Depature, L.; Fourmentin-Lamotte, S.  
CORPORATE SOURCE: Lab. Synth. Org. Environ., Univ. Littoral, Dunkerque,  
59140, Fr.  
SOURCE: European Polymer Journal (1999), 35(4), 663-667  
CODEN: EUPJAG; ISSN: 0014-3057  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB In this paper, the synthesis of polysalt and ylidic polymers is reported  
for the first time. The two polymers are obtained by a polycondensation  
reaction between N,N'-dipyridylum dicarbethoxymethylide (BDDY) and  
1,3-bis(p-chloroformylphenyl)parabanic acid (BPA). The structure of the  
new obtained compds. have been established by 1H-NMR spectra.

Updated Search



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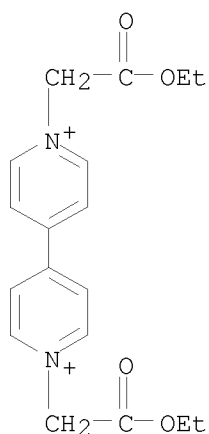
IT 224453-71-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(polycondensation of N,N'-dicarbethoxymethyl-4,4'-dipyridylum with  
1,3-bis(p-chloroformylphenyl)parabanic acid leading to formation of  
polydipyridylum salt and its transformation into ylidic polymer)  
RN 224453-71-8 HCAPLUS  
CN 4,4'-Bipyridinium, 1,1'-bis(2-ethoxy-2-oxoethyl)-, dibromide, polymer with  
4,4'-(2,4,5-trioxo-1,3-imidazolidinediyl)bis[benzoyl chloride] (9CI) (CA  
INDEX NAME)  
  
CM 1  
  
CRN 119080-02-3  
CMF C17 H8 C12 N2 O5



CM 2  
  
CRN 75539-74-1  
CMF C18 H22 N2 O4 . 2 Br

Updated Search

10501317



● 2 Br<sup>-</sup>

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 112 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:152312 HCAPLUS

DOCUMENT NUMBER: 130:196959

TITLE: Solid-phase synthesis of N-substituted glycine peptide combinatorial libraries and nitrogen heterocycle combinatorial libraries

INVENTOR(S): Zuckermann, Ronald N.; Goff, Dane A.; Ng, Simon; Spear, Kerry; Scott, Barbara O.; Sigmund, Aaron C.; Goldsmith, Richard A.; Marlowe, Charles K.; Pei, Yazhong; Richter, Lutz; Simon, Reyna

PATENT ASSIGNEE(S): Chiron Corporation, USA

SOURCE: U.S., 50 pp., Cont.-in-part of U.S. Ser. No. 277,228, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5877278	A	19990302	US 1995-487282	19950607
EP 1258492	A1	20021120	EP 2002-77404	19930924
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 5831005	A	19981103	US 1995-441826	19950516
US 5977301	A	19991102	US 1995-485106	19950607
CA 2221517	A1	19961219	CA 1996-2221517	19960604
WO 9640202	A1	19961219	WO 1996-US8832	19960604
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,				

Updated Search

10501317

SG, SI  
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,  
IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML  
AU 9662534 A 19961230 AU 1996-62534 19960604  
EP 789577 A1 19970820 EP 1996-921278 19960604  
EP 789577 B1 20030312  
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL,  
PT, SE  
JP 11507049 T 19990622 JP 1997-501317 19960604  
JP 3943593 B2 20070711  
AT 234268 T 20030315 AT 1996-921278 19960604  
JP 2000239242 A 20000905 JP 2000-38885 20000216  
JP 3596752 B2 20041202  
US 2002115612 A1 20020822 US 2002-71577 20020208  
JP 2006182780 A 20060713 JP 2005-365635 20051219  
PRIORITY APPLN. INFO.:  
US 1992-950853 B2 19920924  
US 1993-126539 B2 19930924  
US 1994-277228 B2 19940718  
EP 1993-923131 A3 19930924  
JP 1994-508459 A3 19930924  
US 1995-454511 B3 19950530  
US 1995-487282 A 19950607  
JP 1997-501317 A3 19960604  
WO 1996-US8832 W 19960604  
US 2000-573700 B3 20000519  
AB A solid-phase method for the synthesis of N-substituted oligomers, such as poly(N-substituted glycines) (referred to herein as poly NSGs) is used to obtain oligomers, such as poly NSGs of potential therapeutic interest which poly NSGs can have a wide variety of side chain substituents. Each N-substituted glycine monomer is assembled from two "sub-monomers" directly on the solid support. Each cycle of monomer addition consists of two steps: (1) acylation of a secondary amine bound to the support with an acylating agent comprising a leaving group capable of nucleophilic displacement by NH<sub>2</sub>, such as a haloacetic acid, and (2) introduction of the side chain by nucleophilic displacement of the leaving group, such as halogen (as a solid support-bound  $\alpha$ -haloacetamide) with a sufficient amount of a second sub-monomer comprising an NH<sub>2</sub> group, such as a primary amine, alkoxyamine, semicarbazide, acyl hydrazide, carbazate, or the like. Repetition of the two step cycle of acylation and displacement gives the desired oligomers. The efficient synthesis of a wide variety of oligomeric NSGs using automated synthesis technol. of the present method makes these oligomers attractive candidates for the generation and rapid screening of diverse peptidomimetic libraries. The oligomers of the invention, such as N-substituted glycines (i.e. poly NSGs) disclosed here provide a new class of peptide-like compds. not found in nature, but which are synthetically accessible and have been shown to possess significant biol. activity and proteolytic stability. Combinatorial libraries of cyclic compds. are disclosed wherein the cyclic compds. are comprised of at least one ring structure derived from cyclization of a peptoid backbone. The diversity of product compds. is generated by the sequential addition of substituted submonomers. The combinatorial library includes 10 or more, preferably 100 or more, and more preferably 1,000 or more distinct and different compds. The library includes each of the product compds. in retrievable and analyzable amts. and preferably includes at least one biol. active compound. Methods of synthesizing the combinatorial libraries and assay devices produced using the libraries are disclosed, as

Updated Search

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is methodol. for screening for and obtaining biol. active cyclic organic compds.

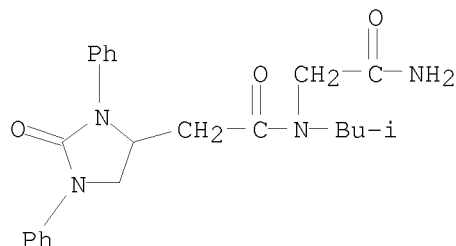
IT 220826-86-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(solid-phase preparation of N-substituted glycine peptide combinatorial libraries and nitrogen heterocycle combinatorial libraries)

RN 220826-86-8 HCAPLUS

CN 4-Imidazolidineacetamide, N-(2-amino-2-oxoethyl)-N-(2-methylpropyl)-2-oxo-1,3-diphenyl- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 113 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:113712 HCAPLUS

DOCUMENT NUMBER: 130:168662

TITLE: Preparation of N-sulfonylproline dipeptide derivatives and analogs as inhibitors of leukocyte adhesion mediated by VLA-4

INVENTOR(S): Thorsett, Eugene D.; Semko, Christopher M.; Pleiss, Michael A.; Kreft, Anthony; Konradi, Andrei W.; Grant, Francine S.; Baudy, Reinhardt Bernhard; Sarantakis, Dimitrios

PATENT ASSIGNEE(S): Athena Neurosciences, Inc., USA; American Home Products Corporation

SOURCE: PCT Int. Appl., 294 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906437	A1	19990211	WO 1998-US16070	19980731
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2290748	A1	19990211	CA 1998-2290748	19980731

Updated Search

10501317

AU 9888234	A	19990222	AU 1998-88234	19980731
EP 994896	A1	20000426	EP 1998-939871	19980731
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9811594	A	20000905	BR 1998-11594	19980731
HU 2000003921	A2	20010228	HU 2000-3921	19980731
HU 2000003921	A3	20010328		
JP 2001512139	T	20010821	JP 2000-505192	19980731
MX 200000678	A	20010710	MX 2000-678	20000119
NO 2000000452	A	20000327	NO 2000-452	20000128
PRIORITY APPLN. INFO.:			US 1997-904423	A2 19970731
			WO 1998-US16070	W 19980731

OTHER SOURCE(S): MARPAT 130:168662

AB Disclosed are title compds. R1SO2NR2CHR3QCHR5COR6 [R1 = (un)substituted alkyl, (un)substituted aryl, (un)substituted cycloalkyl, (un)substituted heterocyclyl; R2 = H, any group R1; R1R2 may form (un)substituted heterocyclic ring; R3 = H, any group R1; R2R3 may form (un)substituted heterocyclic ring; R5 = CH2X1; X1 = H, OH, acylamino, (un)substituted alkyl, alkoxy, aryloxy, aryl, aryloxyaryl, CO2H, carboxyalkyl, carboxyaryl, carboxyheteroaryl, (un)substituted cycloalkyl, (un)substituted heterocyclyl; Q = C(X)NR7; R7 = H, alkyl; X = O, S; R6 = NH2, (un)substituted alkoxy, (un)substituted cycloalkoxy, succinimidyl, adamantylamino,  $\beta$ -cholest-5-en-3-yloxy, NHOY, NH(CH2)pCO2Y, OCH2NR9R10; Y = H, (un)substituted alkyl, (un)substituted aryl; p = 1-8; R9 = (un)substituted CO-aryl; R10 = H, CH2CO2R11, NHSO2Z'; R11 = alkyl; Z' = (un)substituted alkyl, (un)substituted cycloalkyl, (un)substituted aryl, (un)substituted heteroaryl, (un)substituted heterocyclyl; and pharmaceutically acceptable salts thereof, with provisos] which bind VLA-4 (also referred to as integrin  $\alpha 4 \beta 1$  and CD49d/CD29). Certain of these compds. also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compds. are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, wherein the disease may be, for example, asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. The compds. can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis. Thus, BOP-mediated peptide coupling of Ts-Pro-OH (Ts = tosyl) with H-Tyr-OMe gave 75% of the corresponding ester, which underwent saponification

in quant. yield to give desired dipeptide Ts-Pro-Tyr-OH. All prepared compds. have  $IC_{50} \leq 15 \mu M$  in a VLA-4 binding assay.

IT 220303-43-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-sulfonylproline dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4)

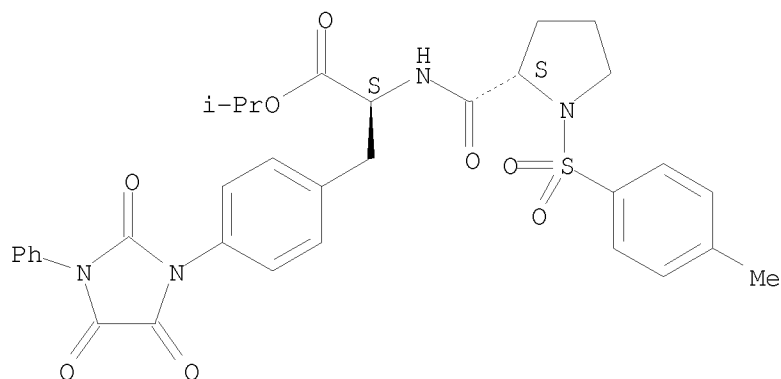
RN 220303-43-5 HCAPLUS

CN L-Phenylalanine, 1-[(4-methylphenyl)sulfonyl]-L-prolyl-4-(2,4,5-trioxo-3-phenyl-1-imidazolidinyl)-, 1-methylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Updated Search

10501317



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 114 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:27832 HCAPLUS

DOCUMENT NUMBER: 130:81398

TITLE: Novel 2-(iminomethyl)aminophenyl derivatives as NO synthase inhibitors and traps for radical oxygen species

INVENTOR(S): Auvin, Serge; Harnett, Jeremiah; Bigg, Dennis;

Chabrier De Lassauniere, Pierre-Etienne

PATENT ASSIGNEE(S): Societe De Conseils de Recherches et D'Applications Scientifiques (S.C.R.A.S, Fr.

SOURCE: PCT Int. Appl., 134 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

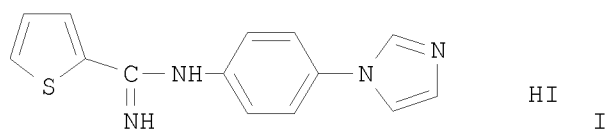
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858934	A1	19981230	WO 1998-FR1250	19980615
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
FR 2764889	A1	19981224	FR 1997-7701	19970620
FR 2764889	B1	20000901		
TW 422842	B	20010221	TW 1998-87109245	19980610
CA 2294809	A1	19981230	CA 1998-2294809	19980615
AU 9882189	A	19990104	AU 1998-82189	19980615
AU 737964	B2	20010906		
EP 991654	A1	20000412	EP 1998-932205	19980615
EP 991654	B1	20050615		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI, RO			

Updated Search

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TR 9903175	T2	20000421	TR 1999-3175	19980615
BR 9810197	A	20000808	BR 1998-10197	19980615
HU 2000002425	A2	20011128	HU 2000-2425	19980615
HU 2000002425	A3	20011228		
NZ 501656	A	20011221	NZ 1998-501656	19980615
JP 2002507965	T	20020312	JP 1999-503871	19980615
RU 2202543	C2	20030420	RU 2000-101328	19980615
AT 297935	T	20050715	AT 1998-932205	19980615
PT 991654	T	20051031	PT 1998-932205	19980615
ES 2244068	T3	20051201	ES 1998-932205	19980615
PL 191987	B1	20060731	PL 1998-337499	19980615
IN 1998DE01642	A	20070223	IN 1998-DE1642	19980615
ZA 9805392	A	19990120	ZA 1998-5392	19980619
NO 9906208	A	20000215	NO 1999-6208	19991215
NO 315321	B1	20030818		
MX 9911971	A	20000430	MX 1999-11971	19991217
HK 1030218	A1	20051028	HK 2001-101230	20010221
US 2002007062	A1	20020117	US 2001-882264	20010615
US 6630461	B2	20031007		
US 2002045753	A1	20020418	US 2001-945782	20010904
US 6599903	B2	20030729		
US 2002042511	A1	20020411	US 2001-953682	20010917
US 6586454	B2	20030701		
US 2003078420	A1	20030424	US 2002-191950	20020709
US 6809088	B2	20041026		
US 2005043397	A1	20050224	US 2004-898916	20040726
US 7122535	B2	20061017		
US 2005187272	A1	20050825	US 2005-105291	20050413
IN 2006DE01211	A	20071123	IN 2006-DE1211	20060517
PRIORITY APPLN. INFO.:			FR 1997-7701	A 19970620
			FR 1997-3528	A 19970324
			WO 1998-FR288	W 19980216
			IN 1998-DE599	A3 19980309
			WO 1998-FR1250	W 19980615
			US 1999-381749	A2 19990922
			US 1999-456205	A3 19991207
			US 2001-882264	A3 20010615
			US 2002-191950	A3 20020709
			US 2004-898916	A3 20040726

OTHER SOURCE(S): MARPAT 130:81398  
GI



AB Amidines AXHetYC6H4N:CBNH2 [A = H, (un)substituted HOC6H4, 6-hydroxy-2,5,7,8-tetramethylchroman-2-yl; B = (un)substituted alkyl, Ph, pyridyl, thienyl, furyl, pyrrolyl, thiazolyl; X = (un)substituted CONHX1, NHCX1, CH:, CO, bond; X1 = (CH2)n; n = 0-6; Y = Y1, CONHY1, NHCY1, COY1, Y1CO, (un)substituted NHY1, Y1NH, Y1CH2NHCO, OY1, SY1, Y1S, Y1OY1, Y1NHY1; Y1 = (CH2)n; Het = (un)substituted heterocyclic] were prepared for use as NO

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synthetase inhibitors and reactive oxygen species traps. Thus, 4-FC6H4NO2 was treated with imidazole and the 1-p-nitrophenylimidazole reduced to the amine and treated with the thiophene fragment to give the amidine I. I had an NO synthetase-inhibiting IC50 < 3.5 µM.

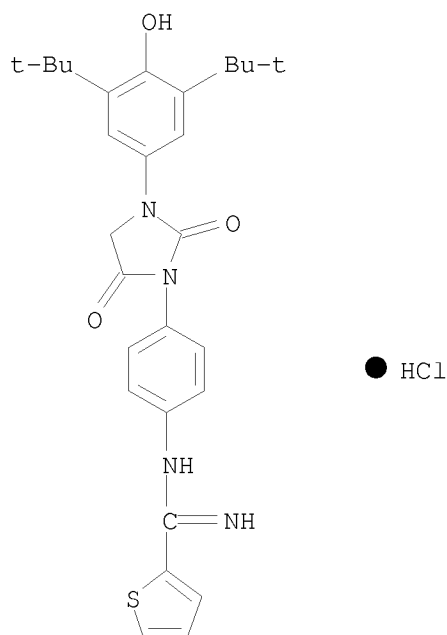
IT 218943-85-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel 2-(iminomethyl)aminophenyl derivs. as NO synthase inhibitors and traps for radical oxygen species)

RN 218943-85-2 HCAPLUS

CN 2-Thiophenecarboximidamide, N-[4-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-2,5-dioxo-1-imidazolidinyl]phenyl]-, monohydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 115 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:13992 HCAPLUS

DOCUMENT NUMBER: 130:66504

TITLE: Preparation of cyclic ureas for the treatment of thrombosis

INVENTOR(S): Himmelsbach, Frank; Pieper, Helmut; Austel, Volkhard; Linz, Guenter; Weisenberger, Johannes; Eisert, Wolfgang; Mueller, Thomas

PATENT ASSIGNEE(S): Karl Thomae Gmbh, Germany

SOURCE: U.S., 43 pp., Cont.-in-part of U.S. 5.650.424.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

Updated Search

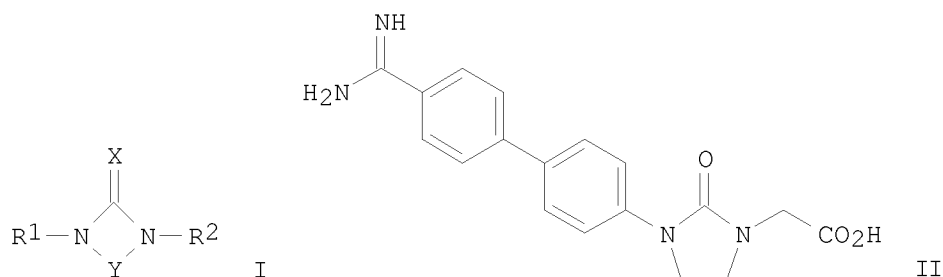


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FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5852192	A	19981222	US 1997-847048	19970501
US 5276049	A	19940104	US 1992-849557	19920311
US 5478942	A	19951226	US 1993-144909	19931028
US 5650424	A	19970722	US 1995-521338	19950829
PRIORITY APPLN. INFO.:			US 1992-849557	A3 19920311
			US 1993-144909	A3 19931028
			US 1995-521338	A2 19950829
			DE 1991-4107857	A 19910312

OTHER SOURCE(S): MARPAT 130:66504  
GI



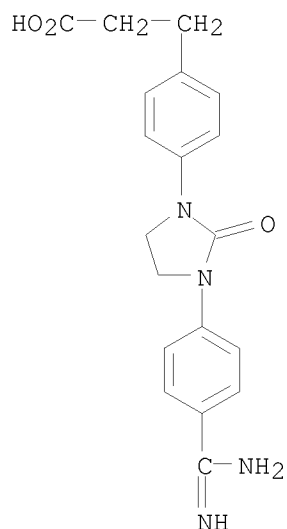
AB The title compds. [I; X = O; Y = ethylene; one of R1 or R2 = ABC (wherein A = C1-5 aminoalkyl, amino, amidino, etc.; b = a bond; C = (un)substituted phenylene); the other of R1 or R2 = FED (D = (un)substituted cyclohexaline, etc.; E = (un)substituted C1-5 alkylene, C2-5 alkenylene; F = carbonyl substituted by a hydroxy or C1-6 alkoxy, etc.)], useful for the treatment of thrombosis, were prepared and formulated. Thus, treatment of 1-(4'-amidino-4-biphenyl)-3-methoxycarbonylmethyl-imidazolidin-2-one.HCl in MeOH with 1N NaOH afforded II which showed IC50 of 1,800 nM against fibrinogen binding and EC50 of 9,900 nM for platelet aggregation inhibition.

IT 144654-62-6P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of cyclic ureas for the treatment of thrombosis)

RN 144654-62-6 HCAPLUS

CN Benzenepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenyl]-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)

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REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 116 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:712648 HCAPLUS

DOCUMENT NUMBER: 130:24979

TITLE: Preparation of quinoline derivatives and drugs containing them for treatment of bone metabolic disorders

INVENTOR(S): Oku, Teruo; Sato, Shigeki; Inoue, Takayuki; Urano, Yasuji; Yoshimitsu, Tatsuya; Yoshida, Noriko

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 60 pp.

CODEN: JKXXAF

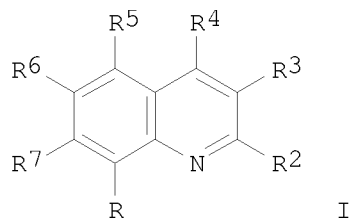
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

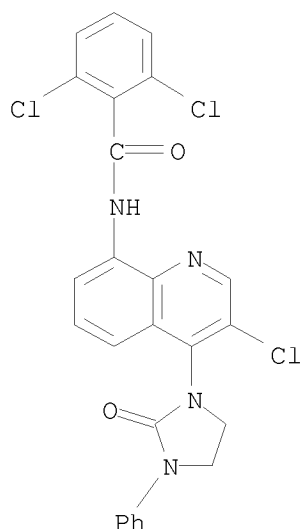
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10291988	A	19981104	JP 1998-104370	19980415
PRIORITY APPLN. INFO.:			AU 1997-6225	A 19970415
OTHER SOURCE(S):	MARPAT	130:24979		
GI				



Updated Search

- AB The derivs. I [R = AR1; R1 = heterocyclyl, aryl, which may be substituted with halo, NO<sub>2</sub>, lower alkyl, lower alkoxy, OH, aralkoxy, lower haloalkyl, acyl, aryl, heterocyclyl, lower alkenyl, lower alkylthio; R2 = H, lower alkyl; R3 = H, halo, cyano, lower alkyl, lower hydroxyalkyl, lower alkoxyalkyl; R4 = H, (un)substituted amino, (un)substituted hydrazino, (un)substituted OH, (un)substituted SH, aralkylsulfinyl, aralkylsulfonyl, (un)substituted heterocyclyl, lower alkyl which may be substituted with acyl or cyano; R3 and R4 may be bonded to each other forming NR<sub>8</sub>N:CH (R<sub>8</sub> = H, lower alkyl); R5-R7 = H, halo, lower alkyl; A = CONH, NHCO, NHSO<sub>2</sub>, NHCONH; if R4 = H, then R3 ≠ H] (II) and their pharmaceutically acceptable salts are prepared II are prepared by (a) treatment of I (R = NH<sub>2</sub>) (III), their reactive derivs., or their salts with R1CO<sub>2</sub>H, their reactive derivs., or their salts, (b) treatment of I (R = CO<sub>2</sub>H), their reactive derivs., or their salts with R1NH<sub>2</sub>, their reactive derivs., or their salts, (c) treatment of III or their salts with R1SO<sub>3</sub>H, their reactive derivs., or their salts, (d) treatment of III with R1NCO or their salts, etc. The drugs containing II or their salts are useful for prevention and/or treatment of osteoporosis, hypercalcemia, hyperparathyroidism, rheumatoid arthritis, etc. A N-methylpyrrolidone solution of 4-(2-amino-2-methylpropylamino)-8-(2,6-dichlorobenzoylamino)-3-methylquinoline (prepared from 3-chloromethyl-1,4-dihydro-8-nitro-4-oxoquinoline with 6 steps) was treated with 1,1'-carbonyldiimidazole at 60° for 1 h and the reaction mixture was further treated with 1,8-diazabicyclo[5.4.0]undec-7-ene at 140° to give 8-(2,6-dichlorobenzoylamino)-4-(4,4-dimethyl-2-oxoimidazolidin-1-yl)-3-methylquinoline. Some of II showed 100% inhibition on proton transport by vacuolar H<sup>+</sup>-ATPase of microsome derived from mouse peritoneal macrophage. Suppression of PTH-induced bone resorption by II was also shown.
- IT 216257-93-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of quinoline derivs. and drugs containing them for treatment of bone metabolic disorders)
- RN 216257-93-1 HCAPLUS
- CN Benzamide, 2,6-dichloro-N-[3-chloro-4-(2-oxo-3-phenyl-1-imidazolidinyl)-8-quinolinyl]- (CA INDEX NAME)

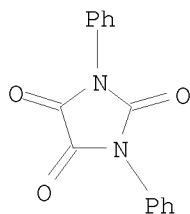
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L4 ANSWER 117 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1998:520228 HCAPLUS  
DOCUMENT NUMBER: 129:245090  
TITLE: Superacid-activated condensation of parabanic acid and derivatives with arenes. A new synthesis of phenytoin and 5,5-diarylhydantoins  
AUTHOR(S): Klumpp, Douglas A.; Yeung, Ka Yeun; Prakash, G. K. Surya; Olah, George A.  
CORPORATE SOURCE: Department Chemistry, California State Polytechnic University, Pomona, CA, 91768, USA  
SOURCE: Synlett (1998), (8), 918-920  
CODEN: SYNLES; ISSN: 0936-5214  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 129:245090  
AB A synthetic route to phenytoin and 5,5-diarylhydantoins is reported. Parabanic acid is converted to 5,5-diarylhydantoins (65-98% yield) from CF<sub>3</sub>SO<sub>3</sub>H and arenes. Deuterium-substituted products are prepared in high yield from parabanic acid, CF<sub>3</sub>SO<sub>3</sub>D<sub>3</sub>, and deuterated arenes.  
IT 6488-59-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of phenytoin and arylhydantoins by superacid-activated condensation of parabanic acid and derivs. with arenes)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetriene, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

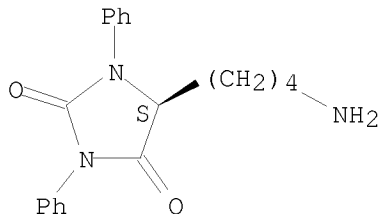
Updated Search

10501317



L4 ANSWER 118 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1998:303625 HCAPLUS  
DOCUMENT NUMBER: 129:41099  
TITLE: Solid phase synthesis of benzamidine and butylamine-derived hydantoin libraries  
AUTHOR(S): Kim, Sang Woong; Koh, Jong Sung; Lee, Eun Ju; Ro, Seonggu  
CORPORATE SOURCE: Biotech Research Institute, LG Chemical Ltd./Research Park, Taejon, 305-380, S. Korea  
SOURCE: Molecular Diversity (1998), Volume Date 1997-1998, 3(2), 129-132  
CODEN: MODIF4; ISSN: 1381-1991  
PUBLISHER: Kluwer Academic Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 129:41099  
AB We have constructed a number of benzamidine- and butylamine-based hydantoin compds. by means of an efficient route using solid phase synthesis in which neat diisopropylamine was employed for a novel cyclization/traceless cleavage step. All library compds. were obtained in excellent yield and high purity.  
IT 208251-63-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(solid phase synthesis of benzamidine- and butylamine-derived hydantoin libraries)  
RN 208251-63-2 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-(4-aminobutyl)-1,3-diphenyl-, (5S)- (CA INDEX NAME)

Absolute stereochemistry.



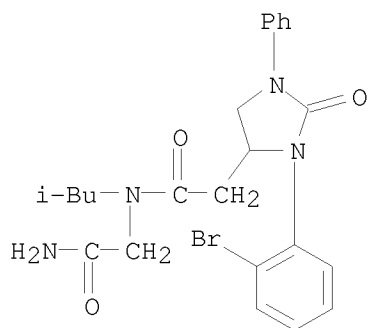
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 119 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

Updated Search

10501317

ACCESSION NUMBER: 1998:159561 HCAPLUS  
DOCUMENT NUMBER: 128:217324  
TITLE: The synthesis of 2-imidazolidones on solid support by tandem aminoacylation/Michael addition  
AUTHOR(S): Goff, Dane  
CORPORATE SOURCE: Chiron Corp., Emeryville, CA, 94608, USA  
SOURCE: Tetrahedron Letters (1998), 39(12), 1477-1480  
CODEN: TELEAY; ISSN: 0040-4039  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Reaction of isocyanates with unsatd. amines bound to a solid support can lead either to 2-imidazolidones or 2-iminooxazolidinones depending on conditions. The imidazolidones are a useful new framework for combinatorial library synthesis.  
IT 204330-02-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of imidazolidones on solid support by tandem aminoacylation/Michael addition)  
RN 204330-02-9 HCAPLUS  
CN 4-Imidazolidineacetamide, N-(2-amino-2-oxoethyl)-3-(2-bromophenyl)-N-(2-methylpropyl)-2-oxo-1-phenyl- (CA INDEX NAME)

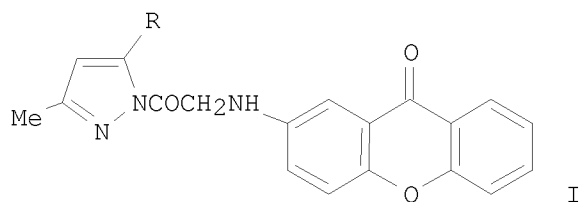


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 120 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1998:61888 HCAPLUS  
DOCUMENT NUMBER: 128:154042  
TITLE: Synthesis of new xanthenone derivatives of expected antibilharzial activity  
AUTHOR(S): Omar, Mahmoud T.  
CORPORATE SOURCE: Chemotherapeutic Department, National Research Centre, Cairo, 12311, Egypt  
SOURCE: Archives of Pharmacal Research (1997), 20(6), 602-609  
CODEN: APHRDQ; ISSN: 0253-6269  
PUBLISHER: Pharmaceutical Society of Korea  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

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AB A new series of 1,3,4-oxadiazoles, 1,3,4-thiadiazoles and 1,2,4-triazoles, pyrazoles, thiazoles, and imidazoles attached directly and/or indirectly to a xanthone moiety at position 2 were synthesized. Some of the newly prepared compds. have schistosomicidal activity, the best activity being observed in pyrazoles I [R = Me, OH].

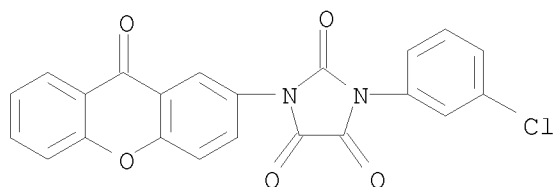
IT 202478-04-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of new xanthone derivs. with antibilharzial activity)

RN 202478-04-4 HCAPLUS

CN Imidazolidinetrione, (3-chlorophenyl)(9-oxo-9H-xanthene-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 121 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:801307 HCAPLUS

DOCUMENT NUMBER: 128:48558

TITLE: Heterocyclic poly(bismaleimide)s. II. Synthesis and characterization of new poly(ether-bismaleimide)s containing parabanic rings

AUTHOR(S): Gaina, C.; Gaina, V.; Sava, M.

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry, Iasi, RO 6600, Rom.

SOURCE: Journal of Macromolecular Science, Pure and Applied Chemistry (1997), A34(12), 2525-2534  
CODEN: JSPCE6; ISSN: 1060-1325

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New poly(ether-bismaleimide)s containing parabanic rings were obtained by the nucleophilic substitution reactions of 1,3-bis(4-dichloromaleimido-phenyl)parabanic acid (4) with various bisphenols. The structures of the

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resulting polymers were confirmed by IR and elemental anal. The polymers are soluble in aprotic dipolar solvents and showed lower thermal stability than other polymers without parabanic rings.

IT 199927-13-4P

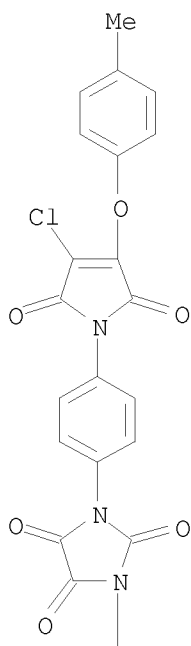
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(model compound; preparation and characterization of new poly(ether-bismaleimide)s containing parabanic rings)

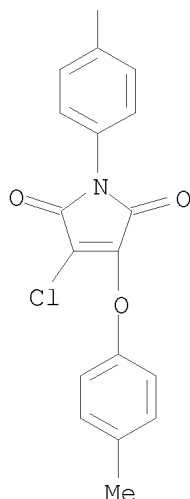
RN 199927-13-4 HCAPLUS

CN Imidazolidinetrione, bis[4-[3-chloro-2,5-dihydro-4-(4-methylphenoxy)-2,5-dioxo-1H-pyrrol-1-yl]phenyl]- (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 122 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:511641 HCAPLUS

DOCUMENT NUMBER: 127:135812

TITLE: Preparation of 2-phenyl-3-(aminoalkyl)indole derivatives as antagonists of gonadotropin releasing hormone (GnRH)

INVENTOR(S): Goulet, Mark; Ashton, Wallace T.; Chu, Lin; Fisher, Michael H.; Wyvratt, Matthew J.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA; Goulet, Mark; Ashton, Wallace T.; Chu, Lin; Fisher, Michael H.; Wyvratt, Matthew J.

SOURCE: PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9721707	A1	19970619	WO 1996-US19767	19961210
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2240111	A1	19970619	CA 1996-2240111	19961210
AU 9712876	A	19970703	AU 1997-12876	19961210
AU 707277	B2	19990708		
EP 882040	A1	19981209	EP 1996-943711	19961210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
CN 1209129	A	19990224	CN 1996-199923	19961210

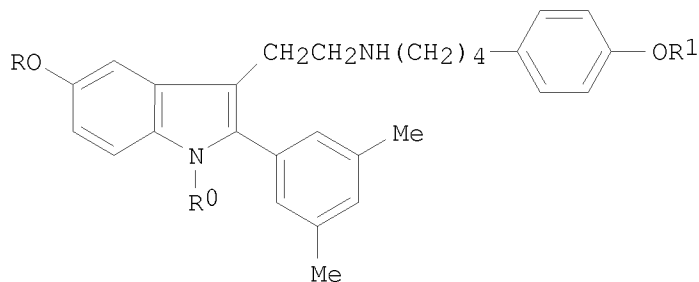
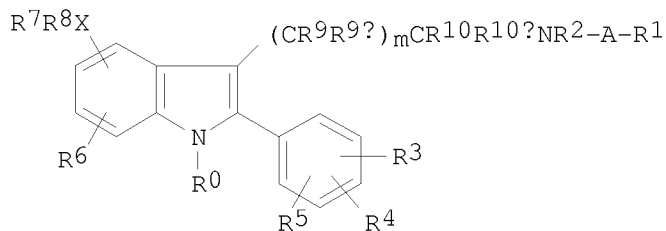
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JP 11502538	T	19990302	JP 1997-522193	19961210
JP 3092946	B2	20000925		
NZ 325060	A	20000228	NZ 1996-325060	19961210
JP 2000212161	A	20000802	JP 2000-36746	19961210
HU 9903686	A2	20000928	HU 1999-3686	19961210
HU 9903686	A3	20001228		
US 6197975	B1	20010306	US 1998-77565	19980601
NO 9802730	A	19980813	NO 1998-2730	19980612

PRIORITY APPLN. INFO.:

US 1995-8631P	P	19951214
GB 1996-3344	A	19960216
US 1996-760866	B1	19961205
JP 1997-522193	A3	19961210
WO 1996-US19767	W	19961210

OTHER SOURCE(S): MARPAT 127:135812  
GI



AB There are disclosed compds. of formula [I; A = (un)substituted C1-6 alkyl, C3-7 cycloalkyl, C3-6 alkenyl, or C3-6 alkynyl, C1-6 alkoxy, etc.; R0 = halo, (un)substituted C1-6 alkyl; R1 = (un)substituted Ph or naphthyl; R2 = H, (un)substituted C1-6 alkyl, aralkyl, or aryl, etc.; or R2 and A taken together form a ring of 5-7 atoms; R3 - R5 = H, (un)substituted C1-6 alkyl or C2-6 alkenyl, cyano, NO2, C1-3 perfluoroalkyl, perfluoroalkoxy, (un)substituted aryl, etc.; R3 and R4 taken together form a carbocyclic ring of 3-7 carbon atoms or a heterocyclic ring containing 1-3 heteroatoms selected from N, O, and S; R6 = H, (un)substituted C1-6 alkyl or aryl, cyano, NO2, halo, etc.; R7 = H, (un)substituted C1-6 alkyl, unless X = H or halo, then R7 is absent; R8 = CO2R20, CONR20R21, NR20R21, COR20, NR21COR20, NR21CONR20R21, NR20SO2R21, etc.; wherein R20, R21 = H, (un)substituted C1-6 alkyl, aryl, aralkyl, a carbocyclic ring of 3-7 atoms, or a heterocyclic ring or bicyclic heterocyclic ring with 1-4

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10501317

heteroatoms; R9, R9a, R10, R10a = H, (un)substituted C1-6 alkyl, aryl, or aralkyl when  $m \neq 0$ ; or e.g. R9 and R9a (when  $m \neq 0$ ) or R10 and R10a taken together form a carbocyclic ring of 3-7 atoms or 0 when  $m \neq 0$ ] and pharmaceutically acceptable salts thereof. They are useful as antagonists of GnRH and as such may be useful for the treatment of a variety of sex-hormone related and other conditions in both men and women, e.g. sex-hormone dependent cancers, benign prostatic hypertrophy or myoma of the uterus (no data). Thus, a solution of 5-hydroxyindole derivative (II;

R =

H, R0 = CO<sub>2</sub>CH<sub>2</sub>Ph, R1 = CH<sub>2</sub>Ph) in CH<sub>2</sub>Cl<sub>2</sub> was treated at 0° with triphosgene and a solution of pyridine in CH<sub>2</sub>Cl<sub>2</sub> and stirred for 20 min and the reaction mixture was added to morpholine in CH<sub>2</sub>CH<sub>2</sub> at 0° and stirred at room temperature for 45 min to give the morpholine-4-carboxylic acid ester II (R = morpholine-4-carboxyloxy, R0 = CO<sub>2</sub>CH<sub>2</sub>Ph, R1 = CH<sub>2</sub>Ph). This was hydrogenolyzed in the presence of 10% Pd-C in AcOH under hydrogen

atmospheric

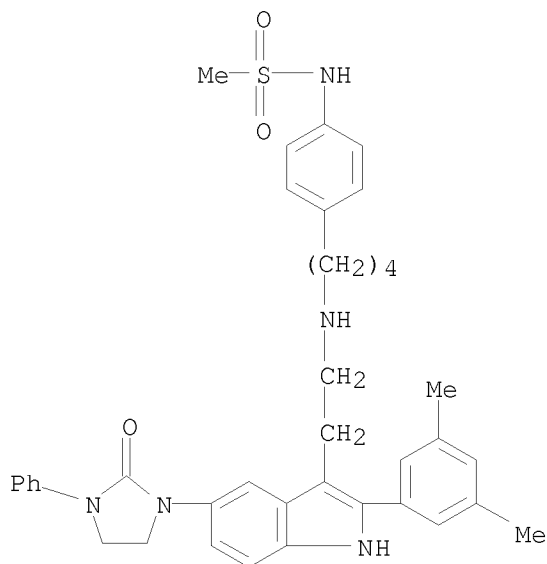
to give II (R = morpholine-4-carboxyloxy, R0 = R1 = H).

IT 193016-30-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of phenyl(aminoalkyl)indole derivs. as antagonists of gonadotropin releasing hormone for treatment of sex-hormone related conditions)

RN 193016-30-7 HCAPLUS

CN Methanesulfonamide, N-[4-[4-[[2-[2-(3,5-dimethylphenyl)-5-(2-oxo-3-phenyl-1-imidazolidinyl)-1H-indol-3-yl]ethyl]amino]butyl]phenyl]- (CA INDEX NAME)

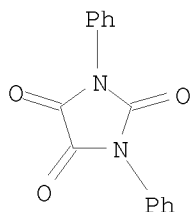


L4 ANSWER 123 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1997:458930 HCAPLUS  
DOCUMENT NUMBER: 127:161708

Updated Search

10501317

TITLE: Urea cyclization reaction studies  
AUTHOR(S): Niddam, Valerie; Medou, Martial; Dessolin, Jean;  
Trabaud, Carole; Camplo, Michel; Kraus, Jean-Louis  
CORPORATE SOURCE: Laboratoire de Chimie Biomoléculaire, Unite INSERM  
U-322, Faculte des Sciences de Luminy, Retrovirus et  
Maladies Associees, Universite de la Mediterranee,  
Marseille, 13288, Fr.  
SOURCE: Journal of Heterocyclic Chemistry (1997), 34(3),  
829-833  
CODEN: JHTCAD; ISSN: 0022-152X  
PUBLISHER: HeteroCorporation  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 127:161708  
AB Synthetic approaches to N- $\alpha$ -hydroxyalkyl amides or urea derivs. are  
described. In particular, a new 1,4,6-oxadiazocine-2,5,8-trione was  
obtained by condensation of glyoxylic acid with urea derivs. under acidic  
catalysis conditions.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(reactions of ureas with glyoxalate derivs.)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetriene, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 124 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1997:430794 HCAPLUS  
DOCUMENT NUMBER: 127:135767  
TITLE: Solid phase synthesis of hydantoin libraries using a  
novel cyclization and traceless cleavage step  
AUTHOR(S): Kim, Sang Woong; Ahn, Sang Youl; Koh, Jong Sung; Lee,  
Jin Ho; Ro, Seonggu; Cho, Hae Yeon  
CORPORATE SOURCE: Biotech Res. Inst., LG Chemical Ltd./Research Park  
Sci. Town, Taejon, 305-380, S. Korea  
SOURCE: Tetrahedron Letters (1997), 38(26), 4603-4606  
CODEN: TELEAY; ISSN: 0040-4039  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 127:135767  
AB N,N-disubstituted hydantoin libraries were constructed using derivs. of  
amino acids, aromatic aldehydes, and isocyanates. The cyclization to  
hydantoins was a novel, fast, and clean reaction and was completed within

Updated Search

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five min to 1 h with neat diisopropylamine. All library compds. were obtained in excellent yield with high purity even after 5 steps.

IT 193144-90-0P

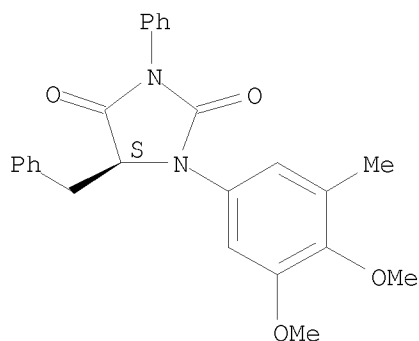
RL: SPN (Synthetic preparation); PREP (Preparation)

(solid phase synthesis of hydantoin libraries using a novel cyclization and traceless cleavage step)

RN 193144-90-0 HCAPLUS

CN 2,4-Imidazolidinedione, 1-(3,4-dimethoxy-5-methylphenyl)-3-phenyl-5-(phenylmethyl)-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 125 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:411024 HCAPLUS

DOCUMENT NUMBER: 127:96710

TITLE: Insulating resin-coated bonding wire

INVENTOR(S): Kondo, Hiroyuki; Nitta, Michio; Nariki, Shinya; Tatsumi, Kohei

PATENT ASSIGNEE(S): Nippon Steel Corporation, Japan

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

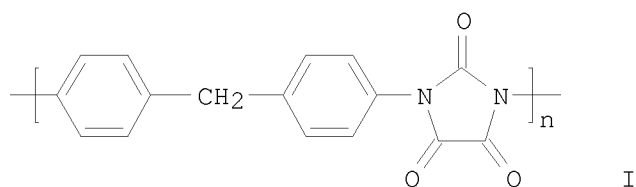
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 5639558	A	19970617	US 1995-398776	19950306
PRIORITY APPLN. INFO.:			JP 1994-40059	A 19940310

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AB A bonding wire has a good bonding property, no damage sustained to coatings during bonding, and capability of retaining an excellent insulating property even when wires come into impact with one another in the resin molding step. The resin, such as polyparabanic acid-based resin and polyarylate resin, has a thermal weight loss (at 1100° in air) ≥85% and a tensile strength (at 180°) ≥300 kg/cm<sup>2</sup>. The Au wire coated with polyparabanic acid I had weight loss (1100°) 100%, glass transition temperature 350°, tensile strength 390 kg/cm<sup>2</sup>, and good bonding property.

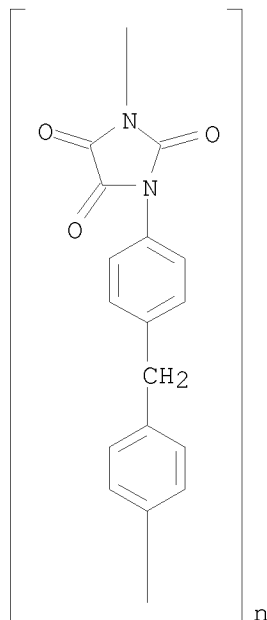
IT 37725-18-1

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(heat-resistant insulating resin for coating gold wire and coated bonding wire)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

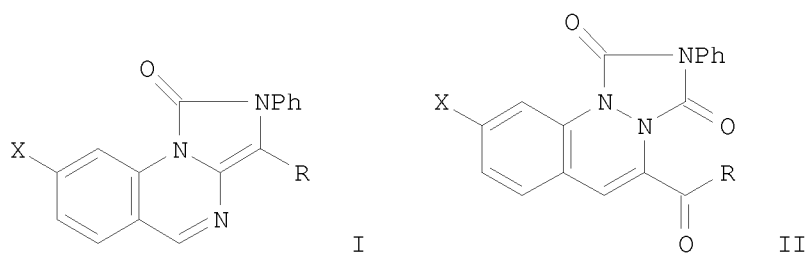


L4 ANSWER 126 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1997:318672 HCAPLUS

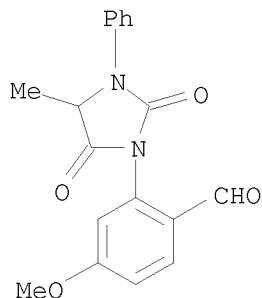
Updated Search

10501317

DOCUMENT NUMBER: 127:50598  
TITLE: One-pot synthesis of 1,10-dihydro-2H-imidazo[3,4-a]quinazolin-1-ones from 3-acyl-1,2-dihydrocinnoline-1,2-dicarboximides  
AUTHOR(S): Seguchi, Kazuyoshi; Tanaka, Satoko  
CORPORATE SOURCE: Faculty Human Environmental Sciences, Mukogawa Women's University, Ikebiraki, 663, Japan  
SOURCE: Heterocycles (1997), 45(4), 707-713  
CODEN: HTCYAM; ISSN: 0385-5414  
PUBLISHER: Japan Institute of Heterocyclic Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 127:50598  
GI



AB 3-Substituted 1,10-dihydro-2H-imidazo[3,4-a]quinazolin-1-ones I (R = Me, Ph, 2-furyl, 4-MeOC<sub>6</sub>H<sub>4</sub>CH:CH, PhCH:CH, 4-methoxy-1-naphthyl, X = OMe, H) were prepared from 3-acyl-1,2-dihydrocinnoline-1,2-dicarboximides II and piperidine in DMSO in moderate yields via Michael addns., skeletal rearrangements, and subsequent decarboxylation.  
IT 190900-45-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(rearrangement of acylcinnolinecarboximides to imidazoquinazolinones)  
RN 190900-45-9 HCAPLUS  
CN Benzaldehyde, 4-methoxy-2-(4-methyl-2,5-dioxo-3-phenyl-1-imidazolidinyl)- (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Updated Search

10501317

L4 ANSWER 127 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:99989 HCAPLUS

DOCUMENT NUMBER: 126:131839

TITLE: Heterocyclic poly(bismaleimide)s. I. Synthesis and characterization of new poly(amino-bismaleimide)s containing parabanic rings

AUTHOR(S): Gaina, C.; Gaina, V.; Stoleriu, A.; Sava, M.; Chiriac, C.; Cozan, V.

CORPORATE SOURCE: "Petru Poni" Institute of Macromolecular Chemistry, Iasi, RO-6600, Rom.

SOURCE: Journal of Macromolecular Science, Pure and Applied Chemistry (1997), A34(1), 191-200  
CODEN: JSPCE6; ISSN: 1060-1325

PUBLISHER: Dekker

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New poly(amino-bismaleimide)s containing parabanic rings were obtained by the polyaddn. reaction of parabanic bismaleimide with various aromatic diamines. The polymers are partially soluble in aprotic dipolar solvents and showed higher thermal stability than other polymers without parabanic units.

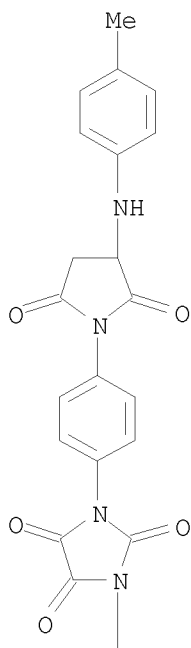
IT 186495-12-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(model compound; synthesis and characterization of polybismaleimides containing parabanic rings)

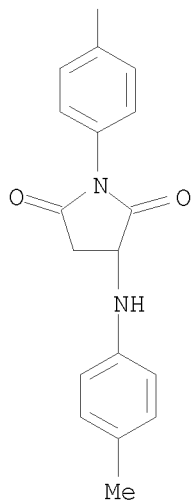
RN 186495-12-5 HCAPLUS

CN Imidazolidinetrione, bis[4-[3-[(4-methylphenyl)amino]-2,5-dioxo-1-pyrrolidinyl]phenyl]- (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 128 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:81509 HCAPLUS

DOCUMENT NUMBER: 126:212090

TITLE: Generation and reactivity of N,N-(dimethylamino)benzotriazolylcarbene a new nucleophilic carbene

AUTHOR(S): Katritzky, Alan R.; Cheng, Dai; Leeming, Peter; Ghiviriga, Ion; Hartshorn, Chris M.; Steel, Peter J.

CORPORATE SOURCE: Cent. Heterocyclic Compounds, Univ. Florida, Gainesville, FL, 32611-7200, USA

SOURCE: Journal of Heterocyclic Chemistry (1996), 33(6), 1935-1941

CODEN: JHTCAD; ISSN: 0022-152X

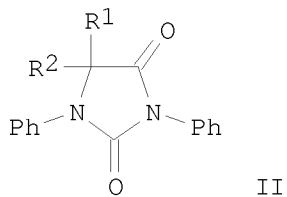
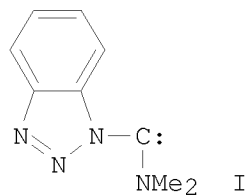
PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:212090

GI



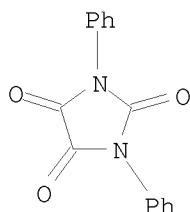
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AB The N,N-(dimethylamino)benzotriazolylcarbene (I) was treated Ph isocyanate in a [1+2+2] cycloaddn. and then with nucleophiles to generate various hydantoins II (R1R2 = oxo, R1 = dimethylamino,H, etc.; R2 = H, MeO, Et, etc.) in a one-pot procedure. This novel carbene reacted with trans-dibenzoylethylene in a [1+4] cycloaddn., generating 2-dimethylamino-3-benzoyl-5-phenylfuran and 2-phenyl-3-[benzotriazol-1-yl]-4-benzoylfuran whose structures were confirmed by 1H-13C long range correlations and by X-ray crystallog.

IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(formation and reactions of nucleophilic (dimethylamino)benzotriazolylcarbene)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetriene, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 129 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:728253 HCAPLUS

DOCUMENT NUMBER: 125:329880

TITLE: Imidazolidine ring-containing polymers and their manufacture

INVENTOR(S): Tanaka, Masato; Ueraga, Uari; Ito, Masayoshi

PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

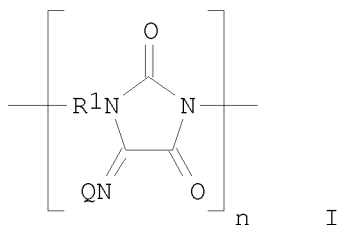
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08245740	A	19960924	JP 1995-50040	19950309
PRIORITY APPLN. INFO.:			JP 1995-50040	19950309
GI				

Updated Search

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AB The heat-resistant polymers I (R1 = C1-30 alkylene, alkenylene, alkynylene, bivalent aromatic group such as phenylene and naphthylene, disubstituted silylene; Q = R23Si; R2 = C1-20 alkyl, alkenyl, alkynyl, aromatic group such as Ph, naphthyl) are manufactured by addition reaction of R1(NCO)2 and R23CN. The polymers having I (R1 = same as above; Q = H) and their manufacture by reaction of the former polymers with H2O are also claimed. Thus, 10 mmol 1,3-phenylene diisocyanate was treated with 1.98 g trimethylsilyl cyanide at 80° for 18 h in PhMe to give I (R1 = m-C6H4; Q = Me3Si) showing 5% weight loss temperature 480°, which was hydrolyzed to give I (R1 = m-C6H4; Q = H).

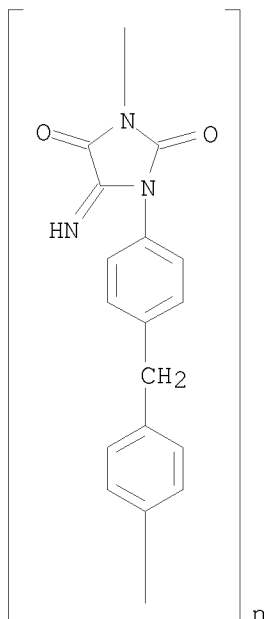
IT 81139-34-6P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)  
(manufacture of iminoimidazolidinedione ring-containing polymers with good

heat resistance)

RN 81139-34-6 HCAPLUS

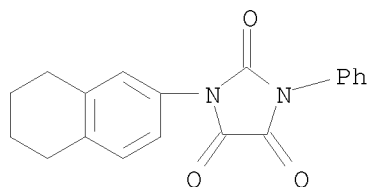
CN Poly[(4-imino-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



Updated Search

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L4 ANSWER 130 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:650954 HCAPLUS  
DOCUMENT NUMBER: 125:300206  
TITLE: Synthesis and preliminary antimicrobial screening of  
some new tetrahydronaphthyl heterocycles  
AUTHOR(S): Kamel, M. M.; Kassem, E. M. M.; Fahmy, H. H.; Abdou,  
W. A. M.  
CORPORATE SOURCE: Medicinal Chemistry Department, National Research  
Centre, Cairo, Egypt  
SOURCE: Egyptian Journal of Chemistry (1996), 39(3), 271-280  
CODEN: EGJCA3; ISSN: 0367-0422  
PUBLISHER: National Information and Documentation Centre  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Tetrahydronaphthyl-substituted ureas, thioureas, and heterocycles were  
prepared and tested for bactericidal and fungicidal properties. E.g.,  
reaction of 6-aminotetralin (I) with RNCX (R = Pr, Ph, Et, COPh; X = O, S)  
gave the corresponding ureas and thioureas. E.g., reaction of I with  
CS<sub>2</sub>/NH<sub>4</sub>OH, followed by reaction with sodium chloroacetate gave  
3-(1,2,3,4-tetrahydronaphthalen-6-yl)thiazolidin-4-one-2-thione.  
IT 182888-58-0P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation)  
(preparation and microbicidal activity of tetrahydronaphthyl-substituted  
ureas, thioureas, and heterocycles)  
RN 182888-58-0 HCAPLUS  
CN Imidazolidinetrione, phenyl(5,6,7,8-tetrahydro-2-naphthalenyl)- (9CI) (CA  
INDEX NAME)

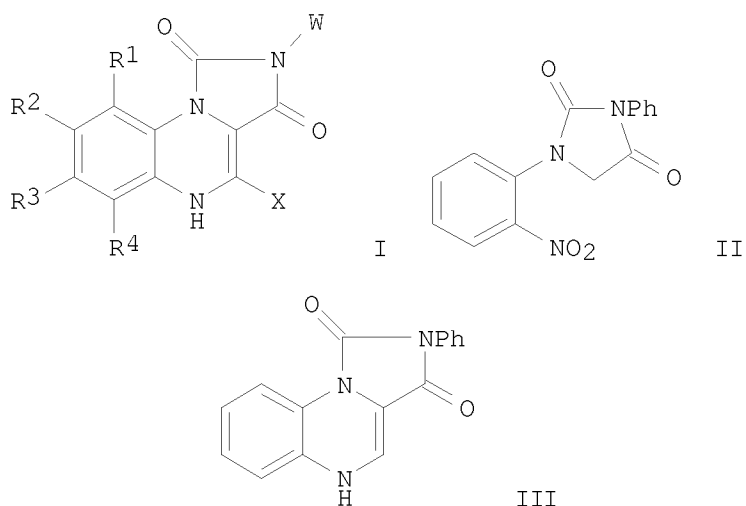


L4 ANSWER 131 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:577578 HCAPLUS  
DOCUMENT NUMBER: 125:221868  
TITLE: Imidazoquinoxalines useful as GABA<sub>A</sub> receptor ligands  
or prodrugs  
INVENTOR(S): Shaw, Kenneth  
PATENT ASSIGNEE(S): Neurogen Corp., USA  
SOURCE: Czech Rep., 39 pp.  
CODEN: CZXXED  
DOCUMENT TYPE: Patent  
LANGUAGE: Czech  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CZ 280796	B6 19960417	CZ 1992-780	19920316
US 5130430	A 19920714	US 1990-606769	19901031
CA 2094805	C 19951226	CA 1991-2094805	19911031
ES 2148169	T3 20001016	ES 1992-900873	19911031
SK 278870	B6 19980408	SK 1992-780	19920316
CN 1076930	A 19931006	CN 1992-102338	19920331
CN 1034174	B 19970305		
RO 109943	B1 19950728	RO 1992-573	19920422
US 5744602	A 19980428	US 1995-440696	19950515
PRIORITY APPLN. INFO.:		US 1990-606769	A 19901031
		US 1993-50068	B1 19930429
OTHER SOURCE(S):	CASREACT 125:221868; MARPAT 125:221868		
GI			



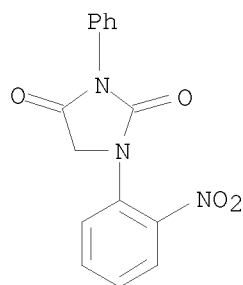
AB Title compds. I and their pharmaceutically acceptable salts are claimed [wherein R1, R4 = H, halo, alkyl, alkoxy; X = H, halo, OH, (di)(alkyl)amino; W = optionally mono- or di-substituted Ph, thienyl, or pyridyl; R2, R3 = H, halo, OH, NH2, (un)substituted 1-indanyl, 4-(thio)chromanyl, or 1-(1,2,3,4-tetrahydronaphthyl), OR5, COR5, CO2R5, OCOR5, R5, CONR6R7, (CH2)nNR6R7, NR8CO2R9, C(OH)R10R11; R5 = H, Ph, pyridyl, alkyl, phenylalkyl, pyridylalkyl; n = 0-2; R6 = H, alkyl; R7 = H, Ph, pyridyl, alkyl, phenylalkyl, pyridylalkyl; or NR6R7 = (un)substituted morpholino, piperidino, pyrrolidino, or N'-alkylpiperazino; R8, R9 = H, Ph, pyridyl, alkyl, phenylalkyl, pyridylalkyl; R10, R11 = alkyl, Ph, phenylalkyl]. The compds. are highly selective agonists, antagonists, or inverse agonists of the GABAA receptor, and are useful as stimulants, anticonvulsants, anxiolytics, sedatives, etc., or for treating benzodiazepine overdose or improving memory. For example, reaction of PhNH2 with 2-O2NC6H4NCO in PhMe gave 2-O2NC6H4NHCONHPh, which reacted with ClCH2COC1 to give 2-O2NC6H4NHCONHPhCOCH2Cl. This was cyclized by (iso-Pr)2NEt in DMF to give imidazolidinedione derivative II, which underwent

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condensation with (MeO)<sub>2</sub>CHNMe<sub>2</sub> in DMF and reductive cyclization using powdered Fe in AcOH to give title compound III. As a preferred compound, III inhibited the binding of [3H]-flumazenil to rat cortical GABA<sub>A</sub> receptors in vitro with an IC<sub>50</sub> of 0.0095 μM.

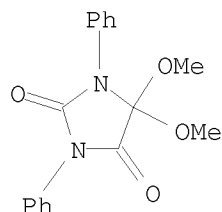
IT 142880-26-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of imidazoquinoxalines as GABA<sub>A</sub> receptor ligands or prodrugs)  
RN 142880-26-0 HCAPLUS  
CN 2,4-Imidazolidinedione, 1-(2-nitrophenyl)-3-phenyl- (CA INDEX NAME)



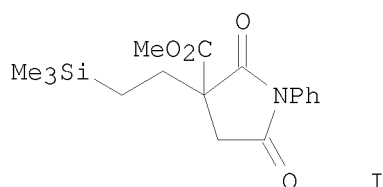
L4 ANSWER 132 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:561804 HCAPLUS  
DOCUMENT NUMBER: 125:300325  
TITLE: (Alkylthio)- and (phenylthio)methoxycarbenes from oxadiazolines  
AUTHOR(S): Er, Hui-Teng; Pole, David L.; Warkentin, John  
CORPORATE SOURCE: Dep. Chem., McMaster Univ., Hamilton, ON, L8S 4M1, Can.  
SOURCE: Canadian Journal of Chemistry (1996), 74(8), 1480-1489  
CODEN: CJCHAG; ISSN: 0008-4042  
PUBLISHER: National Research Council of Canada  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 125:300325  
AB Four 2-methoxy-5,5-dimethyl-Δ<sup>3</sup>-1,3,4-oxadiazolines bearing an alkylthio or arylthio group at C2 were prepared. The oxadiazolines undergo thermolysis at 60-80°C in solution to afford the corresponding oxythiocarbene intermediates. In the absence of carbene traps, dimers of the carbenes were formed. The carbenes were trapped with Et crotonate, with dichloromaleic anhydride, with di-Me acetylenedicarboxylate, and with Ph isocyanate. Ph isocyanate traps methoxy(methylthio)carbene to form two types of adducts, both fundamentally different from the product obtained from reactions of dimethoxycarbene with Ph isocyanate. All of the adducts have structures consistent with nucleophilic behavior of the carbenes.  
IT 43109-63-3P  
RL: PNU (Preparation, unclassified); PREP (Preparation)  
((alkylthio)- and (phenylthio)methoxycarbenes from oxadiazolines)  
RN 43109-63-3 HCAPLUS  
CN 2,4-Imidazolidinedione, 5,5-dimethoxy-1,3-diphenyl- (CA INDEX NAME)

Updated Search

10501317



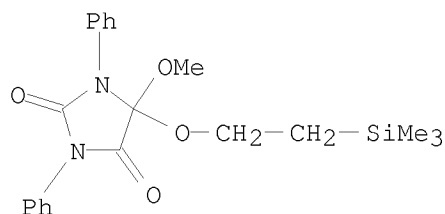
L4 ANSWER 133 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:487514 HCAPLUS  
DOCUMENT NUMBER: 125:247886  
TITLE: Methoxy(2-trimethylsilyl)ethoxycarbene. Reactions with Michael acceptors, with hydroxylic compounds, and with miscellaneous functional groups  
AUTHOR(S): Pole, David L.; Sharma, Pradeep K.; Warkentin, John  
CORPORATE SOURCE: Dep. chem., McMaster Univ., Hamilton, ON, L8S 4M1, Can.  
SOURCE: Canadian Journal of Chemistry (1996), 74(7), 1335-1340  
CODEN: CJCHAG; ISSN: 0008-4042  
PUBLISHER: National Research Council of Canada  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 125:247886  
GI



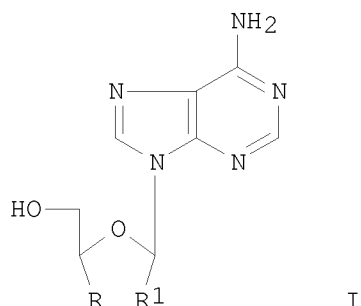
AB Methoxy(2-trimethylsilyl)ethoxycarbene reacts with two equivalent of di-Me acetylenedicarboxylate, Me propiolate, phenylacetylene, or Ph isocyanate without rearrangement of the carbene group. N-Phenylmaleimide captures the carbene with 1:1-stoichiometry. The structure of the product I implies that a migration of the trimethylsilylethyl group from O to C accompanies that reaction. A mechanism for that complex rearrangement is proposed. Phenol and tert-Bu alc. afford the orthoformates expected from overall insertion of the carbene into the OH bond.  
IT 181526-65-8P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 181526-65-8 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-methoxy-1,3-diphenyl-5-[2-(trimethylsilyl)ethoxy]- (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 134 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:398910 HCAPLUS  
DOCUMENT NUMBER: 125:143198  
TITLE: Adenosine dialdehyde analogs. I: Regioselective synthesis of adenosine monoaldehydes  
AUTHOR(S): Neenan, John P.; Opitz, Sumittada M.; Cooke, Charles L.; Ussery, Michael A.; Morrill, Terence C.; Eckel, Linda M.  
CORPORATE SOURCE: Dep. Chem., Rochester Inst. Technology, Rochester, NY, 14623, USA  
SOURCE: Bioorganic & Medicinal Chemistry Letters (1996), 6(12), 1381-1386  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



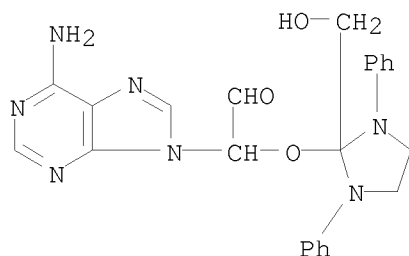
AB Regioselective borohydride reduction of adenosine dialdehyde I (R = R1 = CHO) gave the known adenosine 2'-monoaldehyde I (R = CH2OH, R1 = CHO) (II). Reaction of I (R = R1 = CHO) with N,N'-diphenylethylenediamine, followed by reduction and deblocking gave adenosine 3'-monoaldehyde I (R = CHO, R1 = CH2OH) (III), a new compound Unlike II, compound III inhibited S-AdoHcy hydrolase and showed antiviral activity in vitro.  
IT 180040-09-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(regioselective synthesis and antiviral activity of adenosine monoaldehydes)  
RN 180040-09-9 HCAPLUS

Updated Search



10501317

CN 9H-Purine-9-acetaldehyde, 6-amino- $\alpha$ -[[2-(hydroxymethyl)-1,3-diphenyl-2-imidazolidinyl]oxy]- (CA INDEX NAME)



L4 ANSWER 135 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:235943 HCAPLUS

DOCUMENT NUMBER: 124:331691

TITLE: Synthesis of trioxoperhydroimidazolyl benzopyrones with hypnotic activity

AUTHOR(S): El-Ansary, S. L.; Soliman, G. A.

CORPORATE SOURCE: Faculty Pharmacy, Cairo University, Cairo, Egypt

SOURCE: Egyptian Journal of Pharmaceutical Sciences (1995), 36(1-6), 219-33

CODEN: EJPSBZ; ISSN: 0301-5068

PUBLISHER: National Information and Documentation Centre

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 5-Amino-6-hydroxy-4,7-dimethyl-2H-1-benzopyran-2-one and 6-amino-7-hydroxy-4,8-dimethyl-2H-1-benzopyran-2-one add substituted isocyanates to give the N,N-disubstituted ureas that can be cyclized by the use of oxalyl chloride to the corresponding imidazolyl-2,4,5-triones. Some of the synthesized compds. have been screened for CNS depressant and hypnotic activities. The administration of some of these products at a dose of 20 mg/kg body-weight showed CNS depressant activity, but in a dose of 40 mg/kg body-wt exhibited hypnotic effect. Some derivs. inhibit the growth of Salmonella typhi and Escherichia coli.

IT 176913-88-5P

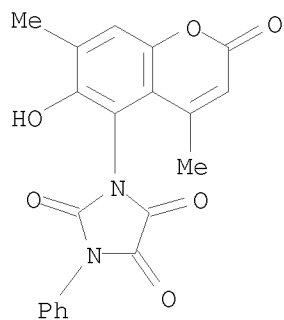
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of trioxoperhydroimidazolyl benzopyrones with hypnotic activity)

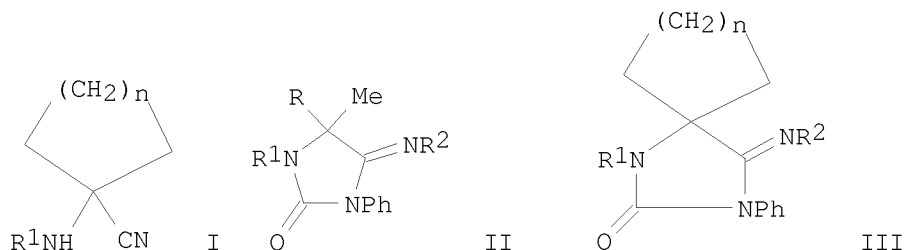
RN 176913-88-5 HCAPLUS

CN Imidazolidinetrione, (6-hydroxy-4,7-dimethyl-2-oxo-2H-1-benzopyran-5-yl)phenyl- (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 136 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:176958 HCAPLUS  
DOCUMENT NUMBER: 124:289354  
TITLE: Synthesis of new imidazolidinones,  
spiroimidazolidinones and spirohydantoins  
AUTHOR(S): Chande, Madhukar S.; Balel, Satish K.  
CORPORATE SOURCE: Department Chemistry, Institute Science, Bombay, 400  
032, India  
SOURCE: Indian Journal of Chemistry, Section B: Organic  
Chemistry Including Medicinal Chemistry (1996),  
35B(4), 377-80  
CODEN: IJSBDB; ISSN: 0376-4699  
PUBLISHER: Publications & Information Directorate, CSIR  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

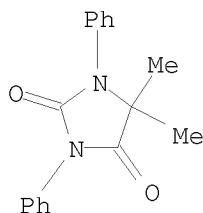


AB  $\alpha$ -Alkyl/aryl- $\alpha$ -arylamino propionitriles,  $\text{RCMe}(\text{NHR}_1)\text{CN}$  ( $\text{R} = \text{Me}$ ,  
 $\text{Ph}$ ,  $\text{R}_1 = \text{Ph}$ , 4-ClC<sub>6</sub>H<sub>4</sub>, 4-MeC<sub>6</sub>H<sub>4</sub>), and 1-arylamino-1-  
cyanocyclohexanes/cyclopentanes I react with alkyl/arylisocyanates to  
afford new imidazolidinones II ( $\text{X} = \text{NH}$ ,  $\text{NCONHR}_2$ ,  $\text{R}_2 = \text{Ph}$ ,  
 $\alpha$ -naphthyl) and spiroimidazolidinones III ( $\text{X} = \text{NH}$ ,  $\text{NCONHR}_2$ ,  $\text{R}_2 = \text{Ph}$ ,  
 $\alpha$ -naphthyl) resp. Compds. II ( $\text{X} = \text{NH}$ ) and III ( $\text{X} = \text{NH}$ ) on hydrolysis  
give hydantoins II ( $\text{X} = \text{O}$ ) and spirohydantoins III ( $\text{X} = \text{O}$ ), resp.  
IT 87976-13-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of new imidazolidinones, spiroimidazolidinones and  
spirohydantoins)  
RN 87976-13-4 HCAPLUS

Updated Search

10501317

CN 2,4-Imidazolidinedione, 5,5-dimethyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 137 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:48779 HCAPLUS

DOCUMENT NUMBER: 124:231935

TITLE: The reduction of oxalic amidines with metallic lithium. Preparation of lithiated bisamides  $[R_2N(RR_1N)C:C(NRR_1)NR_2]Li_2$  and their use as intermediates in a novel synthesis of tetraaminoethenes

AUTHOR(S): Wenzel, Matthias; Lindauer, Dirk; Beckert, Rainer; Boese, Roland; Anders, Ernst

CORPORATE SOURCE: Inst. Org. Makrmol. Chem., Friedrich-Schiller-Univ. Jena, Jena, D-07743, Germany

SOURCE: Chemische Berichte (1996), 129(1), 39-44  
CODEN: CHBEAM; ISSN: 0009-2940

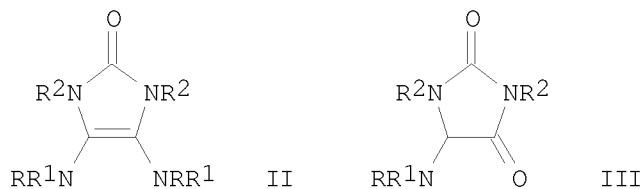
PUBLISHER: VCH

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 124:231935

GI



AB Reduction of the 1,4-diaza-1,3-butadiene substructure of hexasubstituted oxalic amidines with Li metal yields the new Li diamides  $[R_2N(RR_1N)C:C(NRR_1)NR_2]Li_2$  [ $R = Ph$ ;  $R_1 = Me$ ;  $R_2 = 4-MeC_6H_4$  (I) and  $R = R_1 = Et$ ;  $R_2 = 2,4,6-Me_3C_6H_2$ ]. Subsequent reaction of I with various electrophiles gives the corresponding tetraaminoethenes  $R_2R_3N(RR_1N)C:C(NRR_1)NR_2R_4$  [ $R_3 = R_4 = Me$ ;  $R_3R_4 = -(CH_2)_3-$ ] and the acylated derivs. II and III, resp. The 1st SET step in this reaction is the formation of monolithium radical anions, which were detected by EPR spectroscopy. The second electron transfer leads to the deeply colored dianions. In the case of I [cis-I.3 Et<sub>2</sub>O], the x-ray crystal structure reveals the cisoid arrangement of the bidental ligand and 3 mols. of Et<sub>2</sub>O

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which are located in a 2:1 fashion in the first coordination sphere of Li+. The NMR 2D-1H,6Li-HOESY-investigations of I in [D10]Et2O/Et2O (8:1) show Li+ contacts to the H atoms of the ether mols. and to the ortho-H atoms of the aryl moieties. Results of semiempirical calcns. are throughout in acceptable agreement with the exptl. data and explain the unusual coordination pattern of Li+ in the Li diamides.

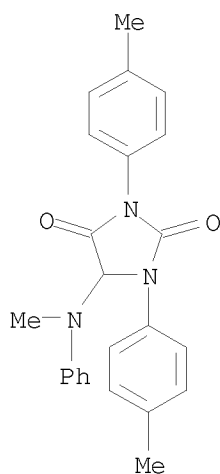
IT 174735-24-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of lithiated bisamides by reduction of oxalic amidines and their use in preparation of tetraaminoethenes)

RN 174735-24-1 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(4-methylphenyl)-5-(methylphenylamino)-  
(CA INDEX NAME)



L4 ANSWER 138 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:858540 HCAPLUS

DOCUMENT NUMBER: 123:259198

TITLE: Semipermeable membranes, their preparation and their use in purification of synthesized organic compounds

INVENTOR(S): Brandt, Horst; Hildenbrand, Karlheinz; Tegtmeyer, Dietrich; Friedrichsen, Ralf; Zarges, Wolfgang

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 652044	A1	19950510	EP 1994-117014	19941027
EP 652044	B1	19990127		

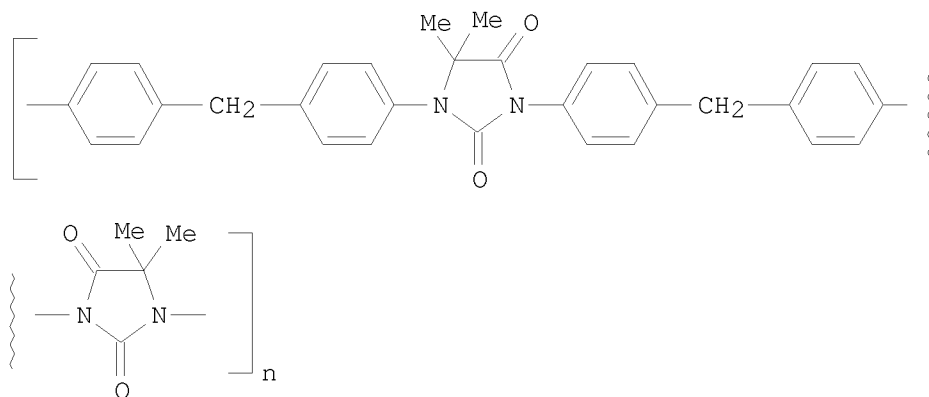
R: CH, DE, FR, GB, LI

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10501317

DE 4338196	A1	19950511	DE 1993-4338196	19931109
JP 07185279	A	19950725	JP 1994-291943	19941102
US 5565102	A	19961015	US 1994-333385	19941102

PRIORITY APPLN. INFO.:  
GI DE 1993-4338196 A 19931109



AB Polymers containing N,N'-linked (by alkylene, cycloalkylene, or arylene groups) optionally substituted hydantoin units in the form of asym. semipermeable membranes are used to purify or concentrate organic synthesis products. The membranes are especially suitable for dye products at low pH.

In an example, a I membrane on a polythiophenylene support was used to purify a triphenyldioxazine reactive dye at pH 0-1.

IT 36247-75-3

RL: TEM (Technical or engineered material use); USES (Uses)  
(semipermeable membranes for dye purification at low pH)

RN 36247-75-3 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 139 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:836904 HCAPLUS

DOCUMENT NUMBER: 123:257642

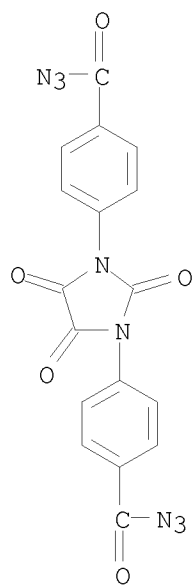
TITLE: Synthesis of metal-containing polyureas with a parabanic structure

AUTHOR(S): Caraculacu, Georgeta; Gaina, Constantin; Caraculacu,

Updated Search

10501317

CORPORATE SOURCE: Adrian A.; Stoica, Gheorghe  
Inst. Macromol. Chem. "P. Poni", Iassy, 6600, Rom.  
SOURCE: European Polymer Journal (1995), 31(10), 987-91  
CODEN: EUPJAG; ISSN: 0014-3057  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Polyureas containing parabanic acid groups were prepared by polymerizing bis(p-isocyanato)parabanic acid with the Mg salt of p-aminobenzoic acid, optionally containing 4,4'-methylenedianiline or 4,4'-oxydianiline. The polymers were characterized by IR and inherent viscosity measurements and their elec. conducting properties are reported.  
IT 169391-38-2P, 1,3-Bis(p-azidocarbonylphenyl)parabanic acid  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; in preparation of Mg-containing parabanic acid derivative polyureas)  
RN 169391-38-2 HCAPLUS  
CN Benzoyl azide, 4,4'-(2,4,5-trioxo-1,3-imidazolidinediyl)bis- (CA INDEX NAME)



L4 ANSWER 140 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1995:818582 HCAPLUS  
DOCUMENT NUMBER: 123:228184  
TITLE: Preparation of imidazolidinone derivative having cholinergic (muscarine M1) activity and remedy for senile dementia  
INVENTOR(S): Takano, Yasuo; Takadoi, Masanori; Okazaki, Kei; Hirayama, Takashi; Yamanishi, Atsuhiko  
PATENT ASSIGNEE(S): Kyorin Pharmaceutical Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 62 pp.  
CODEN: PIXXD2

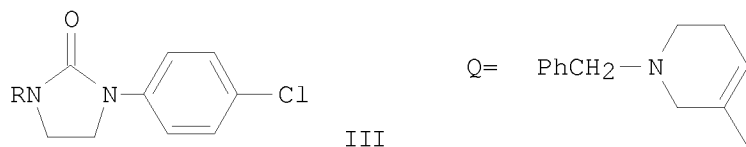
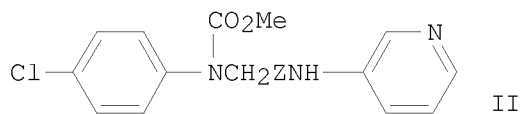
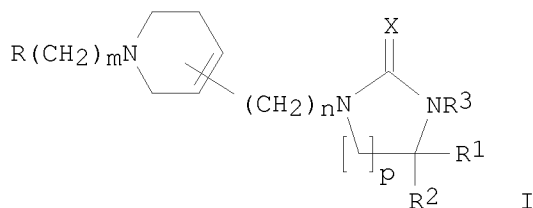
Updated Search

10501317

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9507906	A1	19950323	WO 1994-JP1506	19940912
W: AU, CA, CN, HU, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, PT, SE				
JP 07233162	A	19950905	JP 1994-241931	19940909
JP 3916092	B2	20070516		
CA 2172163	A1	19950323	CA 1994-2172163	19940912
AU 9476244	A	19950403	AU 1994-76244	19940912
AU 679115	B2	19970619		
EP 719773	A1	19960703	EP 1994-926388	19940912
EP 719773	B1	20011121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1135215	A	19961106	CN 1994-194122	19940912
CN 1043990	B	19990707		
HU 75647	A2	19970528	HU 1996-621	19940912
HU 218570	B	20001028		
AT 209197	T	20011215	AT 1994-926388	19940912
US 5789425	A	19980804	US 1996-612829	19960315
PRIORITY APPLN. INFO.:				
			JP 1993-254985	A 19930917
			JP 1994-241931	A 19940909
			WO 1994-JP1506	W 19940912

OTHER SOURCE(S): MARPAT 123:228184  
 GI



AB Imidazolidinone derivs. represented by general formula [I; R = optionally halogenated lower alkyl, cycloalkyl, Ph optionally having ≥1

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substituents, naphthyl, optionally benzene-condensed 5- to 6-membered heterocyclyl; R1, R2 = H, lower alkyl; R3 = R4(CH2)R4(CH2)q, R4(CH2)qC(O), R5C.tplbond.CCH2; wherein R4 = one of the groups listed in R; q = 0-3; R5 = H, R6R7NCH2; wherein R6, R7 = lower alkyl or R6R7N forms a ring optionally containing an addnl. heteroatom; m, n = 0-3; p = 1-3; X = O, S] or acid addition salts thereof, which have potent and specific affinity to muscarine M1 receptor, activate central nervous system choline function of dementia patients, in particular, senile and Alzheimer-type senile dementia patients and improve memory disorders, are prepared Thus, N-methoxycarbonyl-N-(4-chlorophenyl)glycine was condensed with 3-aminopyridine by using 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride in CH2Cl2 to give 63% glycinamide derivative (II; Z = CO), which was reduced by BH3-THF complex in THF at room temperature for 30 min and under reflux for 2 h to give ethylenediamine derivative II (Z = CH2). The latter compound was dissolved in toluene, gradually warmed, and heated at 190-210° for 1.5 h with distillation of toluene to give a syrupy product which was cooled to room temperature, dissolved in CH2Cl2 and purified on a column chromatog., 56% imidazolidinone derivative II (R = 3-pyridyl), which was alkylated by benzyl bromide in MeCN under reflux for 2 h and reduced by NaBH4 in aqueous MeOH at room temperature overnight to give a title

compound II (R

= Q) (III). III showed >16.2 times greater binding affinity to cholinergic muscarine M1 receptor in crude synapses (prepared from rat whole brain, excluding the cerebellum and the brain stem) than that of muscarine M2 receptor in crude synapses (prepared from the rat brain stem). It improved the pirenzepine-induced dementia in mice by 82.7 and 68.8% at 1 and 3 mg/kg, resp.

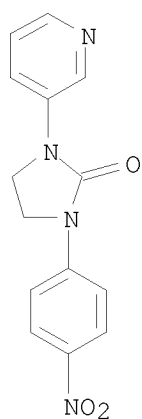
IT 168195-92-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for preparation of imidazolidinone derivative having specific cholinergic (muscarine M1) activity for treating senile dementia)

RN 168195-92-4 HCAPLUS

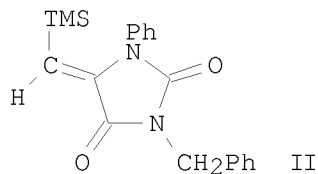
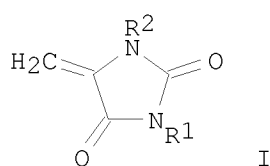
CN 2-Imidazolidinone, 1-(4-nitrophenyl)-3-(3-pyridinyl)- (CA INDEX NAME)



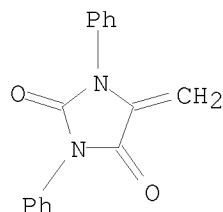


10501317

DOCUMENT NUMBER: 123:339798  
TITLE: Acetylenic amides. 3. The synthesis of  
5-methylene-2,4-imidazolidinediones from  
2-propynamides and isocyanates  
AUTHOR(S): Coppola, Gary M.; Damon, Robert E.  
CORPORATE SOURCE: Sandoz Research Institute, Sandoz Pharmaceuticals  
Corporation, East Hanover, NJ, 07936, USA  
SOURCE: Journal of Heterocyclic Chemistry (1995), 32(4),  
1141-4  
CODEN: JHTCAD; ISSN: 0022-152X  
PUBLISHER: HeteroCorporation  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 123:339798  
GI



AB 2-Propynamides react with aryl isocyanates in the presence of triethylamine to give 5-methylene-2,4-imidazolidinediones I [R1 = (un)substituted Ph; R2 = CH2Ph, Me, Ph] in good yields. If the propynamide contains a terminal trimethylsilyl group, Z-trimethylsilylidenesydnone (II) is produced.  
IT 21249-44-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of 5-methylene-2,4-imidazolidinediones from 2-propynamides and isocyanates)  
RN 21249-44-5 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-methylene-1,3-diphenyl- (CA INDEX NAME)

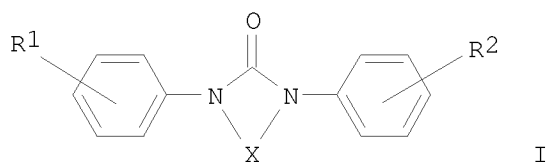


L4 ANSWER 142 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1995:639741 HCAPLUS  
DOCUMENT NUMBER: 123:49747  
TITLE: Substituted tetrahydropyrimidinones: a new herbicidal class of compounds inducing chlorosis by inhibition of phytoene desaturation. 2. Structure-activity

Updated Search

10501317

relationships  
AUTHOR(S): Babczinski, Peter; Blunck, Martin; Sandmann, Gerhard;  
Shiokawa, Kozo; Yasui, Kazuomi  
CORPORATE SOURCE: Agrochem. Div., Monheim Res. Center, Bayer AG,  
Leverkusen, 51368, Germany  
SOURCE: Pesticide Biochemistry and Physiology (1995), 52(1),  
45-59  
CODEN: PCBPBS; ISSN: 0048-3575  
PUBLISHER: Academic  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB Substituted phenyltetrahydropyrimidinones (so-called cyclic ureas) are new chlorosis-inducing preemergence herbicides inhibiting carotenoid biosynthesis at the phytoene desaturase step. Using 138 compds., structure-activity investigations with either greenhouse data (growth in soil under paddy conditions) or biochem. parameters (phytoene accumulation, loss of carotenoids) from cress seedling grown in vermiculite demonstrate the type of substitution in the general structure [I, X = (CH<sub>2</sub>)<sub>n</sub>; n = 2-4; R<sub>1</sub> or R<sub>2</sub> = alkyl and other substituents] favorable for herbicidal and carotenoid biosynthesis inhibitory activity. Both N-linked ligands should be Ph and at least one substituent on one Ph ring is essential. This substitution must be at the meta position. The highest activity is obtained with -CF<sub>3</sub> followed by -Cl, -Br, or -SCH<sub>3</sub>, whereas carbonylic and NO<sub>2</sub> substituents yield poor results. Meta-substituents with high lipophilicity combined with electron-withdrawing properties are favorable for activity. Addnl. substitution at the same Ph ring is allowed only at the other meta position in order to maintain activity. Cyclization of the central urea moiety to a six-member ring gives the best inhibitors, whereas five- or seven-member cyclic ureas are less effective. The optimum element for X in I is 2-methyl-1,3-propylene, giving a 5-methyltetrahydropyrimidine-2-one. The unmethylated compound with X = 1,3-propylene is either evenly or slightly less active (depending on the Ph substitution) but ranks better than the 6-methylated or 5-dimethylated derivative. For 47 derivs. modified at various positions of the basic 1,3-diphenyl-5-methyl-(4H)-pyrimidine-2-one mol. a quant. structure-activity relationship was calculated according to an extended Fujita-Ban model. Linear regression equations were obtd. in which the biol. parameter (carotenoid formation by cress seedlings) was described by certain increments for substituent modifications. The inclusion of a quadratic term for the lipophilicity parameter R<sub>m</sub> into the model equation considerably improves the fit between exptl. and calculated values, indicating a nonlinear dependence of the biol. activity on the lipophilicity of the compds.

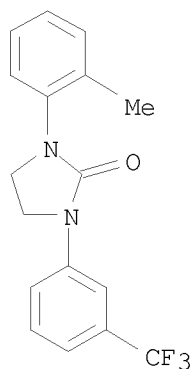
IT 164793-59-3

10501317

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(structure-activity relationships of tetrahydropyrimidinone herbicides inducing chlorosis by inhibition of phytoene desatn.)

RN 164793-59-3 HCAPLUS

CN 2-Imidazolidinone, 1-(2-methylphenyl)-3-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)



L4 ANSWER 143 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:550906 HCAPLUS

DOCUMENT NUMBER: 122:314547

TITLE: Preparation of urea residue-substituted heterocyclic compounds with antithrombotic, antineoplastic and blood platelet-aggregation inhibition activities

INVENTOR(S): Himmelsbach, Frank; Pieper, Helmut; Austel, Volkhard; Linz, Guenter; Guth, Brian; Mueller, Thomas; Weisenberger, Johannes

PATENT ASSIGNEE(S): Dr. Karl Thomae GmbH, Germany

SOURCE: Eur. Pat. Appl., 81 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 612741	A1	19940831	EP 1994-102557	19940221
EP 612741	B1	19980610		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 4305388	A1	19940825	DE 1993-4305388	19930222
DE 4332168	A1	19950323	DE 1993-4332168	19930922
EE 3397	B1	20010416	EE 1994-311	19941123
PRIORITY APPLN. INFO.:			DE 1993-4305388	A 19930222
			DE 1993-4332168	A 19930922

OTHER SOURCE(S): MARPAT 122:314547

AB The title compds., which contain urea-like moieties, often in the form of divalent imidazolidinone groups, which demonstrate a combination of antithrombotic, antineoplastic (no data), and blood platelet-aggregation

Updated Search

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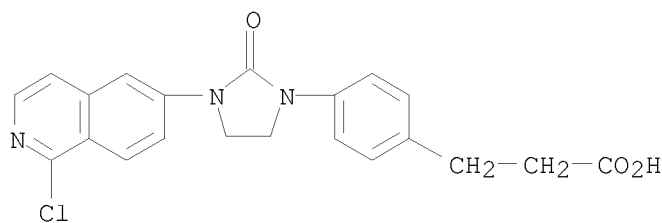
inhibition activities, are prepared and pharmaceutical dosage forms containing them presented. Thus, 1-[4-(2-carboxyethyl)phenyl]-3-(1,2,3,4-tetrahydroisoquinolin-6-yl)imidazolidin-2-one was prepared and demonstrated ED50 for blood platelet aggregation inhibition of 40 nM.

IT 158725-86-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of urea residue-substituted heterocyclic compds. with antithrombotic, antineoplastic and blood platelet aggregation inhibition activities)

RN 158725-86-1 HCAPLUS

CN Benzenepropanoic acid, 4-[3-(1-chloro-6-isoquinolinyl)-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)



L4 ANSWER 144 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:527750 HCAPLUS

DOCUMENT NUMBER: 123:33204

TITLE: Preparation of some multifunctionalized methylenephosphines by reactions of chloro[(2,4,6-tri-t-butylphenyl)phosphinidene]methyllithiums with carbonyl compounds

AUTHOR(S): Yoshifuji, Masaaki; Ito, Shigekazu; Toyota, Kozo; Yasunami, Masafumi

CORPORATE SOURCE: Faculty Science, Tohoku University, Sendai, 980-77, Japan

SOURCE: Bulletin of the Chemical Society of Japan (1995), 68(4), 1206-12

CODEN: BCSJA8; ISSN: 0009-2673

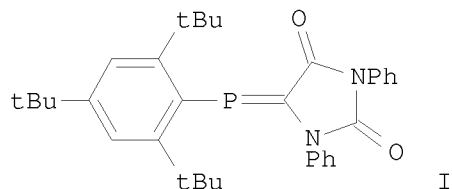
PUBLISHER: Nippon Kagakkai

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 123:33204

GI



Updated Search

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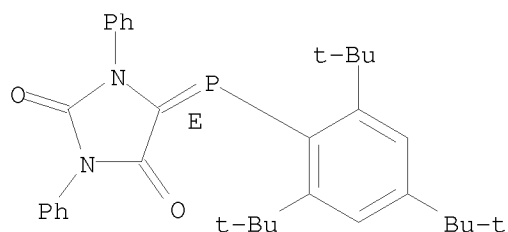
AB Either a (Z)- or (E)-chloro(phosphinidene)methylolithium reagent, prepared from dichloromethylene- or (E)-chloromethylenephosphine with butyllithium, resp., reacted with carbonyl compds. to give the corresponding functionalized methylenephosphines. Although the stereochem. of the products was retained during the initial step of the reaction, in some cases E/Z isomerization reactions occurred to the resulting methylenephosphines. Imidazolidinediones, e.g. I, bearing the P:C bond were obtained for the 1st time by a reaction of the E-Li reagent with Ph isocyanate; the structure of the Z-isomer was determined by x-ray anal.

IT 164027-84-3P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation of some multifunctionalized methylenephosphines by reactions of chloro[(tri-tert-butylphenyl)phosphinidene]methylolithiums with carbonyl compds.)

RN 164027-84-3 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-[[2,4,6-tris(1,1-dimethylethyl)phenyl]phosphinidene]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L4 ANSWER 145 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:518851 HCAPLUS

DOCUMENT NUMBER: 123:118523

TITLE: Cation-exchange polymers for membranes of fuel cells and their manufacture

INVENTOR(S): Yasukawa, Shigeki; Ooba, Ayumi

PATENT ASSIGNEE(S): Mitsubishi Petrochemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

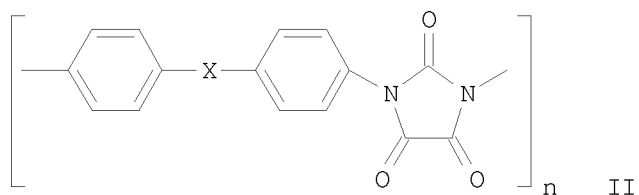
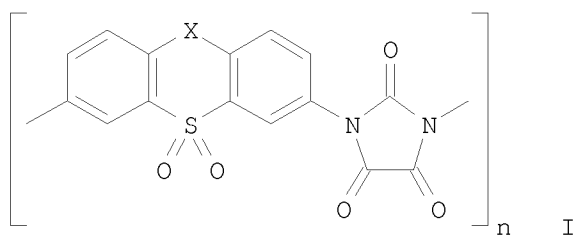
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06343880	A	19941220	JP 1993-135974	19930607
PRIORITY APPLN. INFO.: GI			JP 1993-135974	19930607

Updated Search

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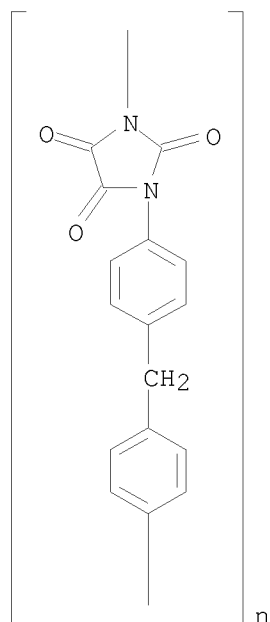
AB The polymers are I, and are prepared from II by sulfonation and then dehydration and cyclization, where X = CH<sub>2</sub>, O, S, SO<sub>2</sub>, and CO and n = 2-500. The manufactured cation-exchange polymers are heat-resistant and have an ion-exchange capacity 0.5-4 mequiv/g.

IT 37725-18-1

RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)  
(cathion exchanger; cation-exchange polymers for membranes of fuel cells)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



Updated Search

10501317

L4 ANSWER 146 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:516695 HCAPLUS

DOCUMENT NUMBER: 122:315240

TITLE: Synthesis and characterization of soluble aromatic polyurea-amides from new N,N'-dimethyl-N,N'-bis(aminophenyl)ureas and aromatic dicarboxylic acid chlorides

AUTHOR(S): Park, Ki Hong; Tani, Takashi; Kakimoto, Masa-aki; Imai, Yoshio

CORPORATE SOURCE: Dep. Org. Polymeric Materials, Tokyo Inst. Technology, Tokyo, 152, Japan

SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1995), 33(7), 1039-46  
CODEN: JPACEC; ISSN: 0887-624X

PUBLISHER: Wiley

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Aromatic polyurea-polyamides having inherent viscosity 0.36-0.67 dL/g were prepared by low temperature solution polycondensation of N,N'-dimethyl-N,N'-bis(aminophenyl)ureas with various aromatic dicarboxylic acid chlorides. All the polymers were amorphous, and most were soluble in organic solvents such as N-methyl-2-pyrrolidone, AcNMe<sub>2</sub>, m-cresol, and pyridine. Some of the polymers could be solution cast into transparent, flexible films having good tensile properties. The T<sub>g</sub> of the polyurea-polyamides were 244-272°C. The temperature of 10% weight loss under N was 430-480°.

IT 163360-94-9P, 1,3-Bis(4-aminophenyl)-2-imidazolidinone-4,4'-oxydibenzoyl chloride copolymer  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and properties of aromatic polyamide-polyureas)

RN 163360-94-9 HCAPLUS

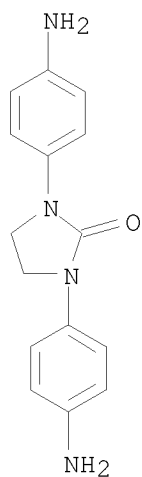
CN Benzoyl chloride, 4,4'-oxybis-, polymer with 1,3-bis(4-aminophenyl)-2-imidazolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 28273-15-6

CMF C15 H16 N4 O

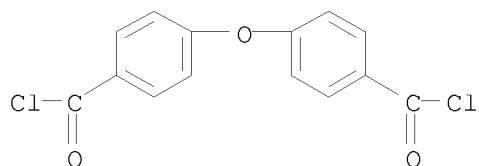
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CM 2

CRN 7158-32-9

CMF C14 H8 Cl2 O3



L4 ANSWER 147 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:502055 HCAPLUS

DOCUMENT NUMBER: 122:266223

TITLE: Synthesis and properties of polyparabanic acid

AUTHOR(S): Yoon, Young Koo; Kim, Dong Kook; Kim, Yang Kook

CORPORATE SOURCE: Dep. Chem., Hanyang Univ., Ansan, 425-791, S. Korea

SOURCE: Pollimo (1995), 19(2), 146-52

CODEN: POLLDG; ISSN: 0379-153X

PUBLISHER: Polymer Society of Korea

DOCUMENT TYPE: Journal

LANGUAGE: Korean

AB Synthetic routes and properties of polyparabanic acid were studied. As model compds., N,N'-dimethylparabanic acid and N,N'-diphenylparabanic acid were prepared by the reaction of N,N'-dimethylurea and N,N'-diphenylurea, resp., with oxalyl dichloride in the presence of pyridine as a catalyst. The N-substituted parabanic acids were characterized by IR, 1H-NMR, mass spectroscopy, and elemental anal. Various polyureas were synthesized via polyaddn. reaction of 1,6-hexamethylene diisocyanate with aliphatic or aromatic diamines in DMF solution. Then, the polyureas were treated with oxalyl dichloride to yield polyparabanic acids. Formation of polyparabanic acid was confirmed by the appearance of IR absorption at 1730 cm<sup>-1</sup> and 1780

Updated Search



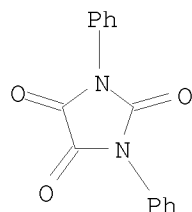
cm-1 which were assignable to the carbonyl stretching peaks of 5-membered ring in polyparabanic acid. Inherent viscosities of the obtained polyparabanic acids were in the range of 0.15.apprx.0.48 dL/g and the TGA data revealed 10% weight losses at 370.apprx.458°C whereas those of polyureas were in the range of 0.29.apprx.0.71 dL/g and 235.apprx.301°C, resp.

IT 6488-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(model compound for polyparabanic acid)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 148 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:365911 HCAPLUS

DOCUMENT NUMBER: 122:213836

TITLE: Infrared study of five- and six-membered type cyclic imides

AUTHOR(S): Nyquist, Richard A.; Fiedler, S. L.

CORPORATE SOURCE: Analytical Sciences Laboratory, The Dow Chemical Company, Midland, MI, 48667, USA

SOURCE: Vibrational Spectroscopy (1995), 8(3), 365-86  
CODEN: VISPEK; ISSN: 0924-2031

PUBLISHER: Elsevier

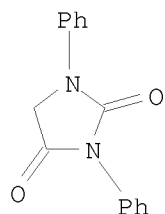
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Compds. such as caffeine, isocaffeine, 1,3-dimethyl-2,4-(1H,3H)-quinazolinedione, 1,3,5-trimethyluracil, 1,3,6-trimethyluracil, and hydantoins exhibit  $\nu_{\text{in-phase}}(\text{C}=\text{O})_2$ ,  $\nu_{\text{ip}}(\text{C}=\text{O})_2$ , and  $\nu_{\text{out-of-phase}}(\text{C}=\text{O})_2$ ,  $\nu_{\text{op}}(\text{C}=\text{O})_2$ , modes. The  $\nu_{\text{ip}}(\text{C}=\text{O})_2$  mode always occurs at higher frequency than the  $\nu_{\text{op}}(\text{C}=\text{O})_2$  mode in these five- and six-membered type cyclic imides. The frequency separation between  $\nu_{\text{ip}}(\text{C}=\text{O})_2$  and  $\nu_{\text{op}}(\text{C}=\text{O})_2$  changes with change in phys. state, and this frequency separation is larger in the solid state than it is in the vapor state. Moreover, the frequency separation between  $\nu_{\text{ip}}(\text{C}=\text{O})_2$  and  $\nu_{\text{op}}(\text{C}=\text{O})_2$  increases as the mole%  $\text{CHCl}_3/\text{CCl}_4$  increases. The study also shows that in some cases  $\nu_{\text{op}}(\text{C}=\text{O})_2$  is in Fermi resonance with a combination tone. In all cases, the  $\nu_{\text{op}}(\text{C}=\text{O})_2$  mode decreases more in frequency than the  $\nu_{\text{ip}}(\text{C}=\text{O})_2$  mode decreases in frequency as the mole%  $\text{CHCl}_3/\text{CCl}_4$  increases, and this conforms to the Nyquist rule. The  $\nu(\text{C}=\text{O})_2$  modes for the five-membered type cyclic imides occur at higher frequency than the corresponding  $\nu(\text{C}=\text{O})_2$  modes for the six-membered type cyclic imides. These studies have also shown that different solute-solvent complexes are formed as the mole%  $\text{CHCl}_3/\text{CCl}_4$  changes. In addition, it has been shown that the absorbance ratio for  $A[\nu_{\text{ip}}(\text{C}=\text{O})_2]/A[\nu_{\text{op}}(\text{C}=\text{O})_2]$

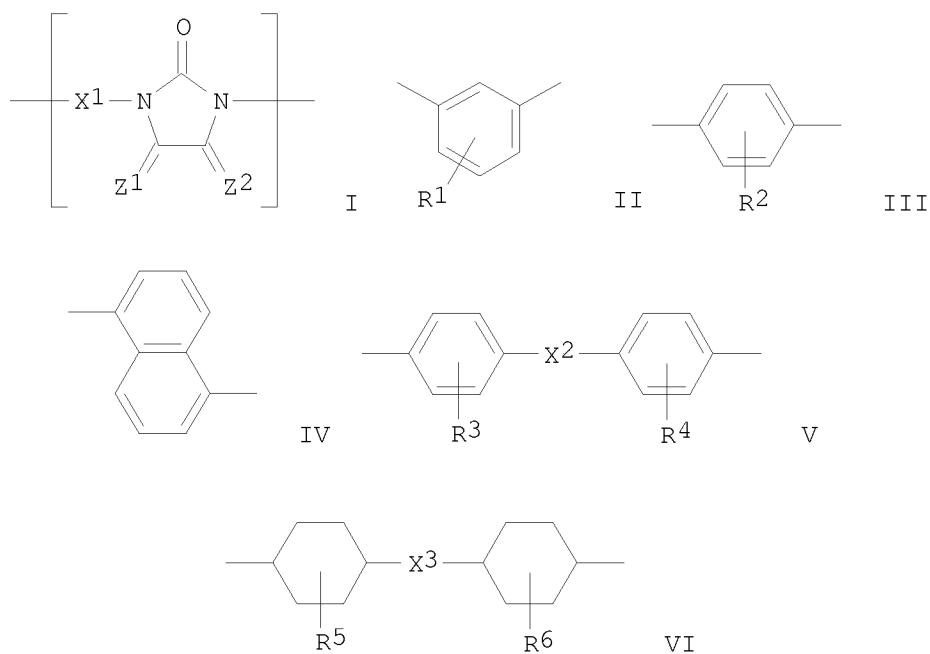
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decreases as the mole% CHCl<sub>3</sub>/CCl<sub>4</sub> increases.  
IT 3157-03-7  
RL: PRP (Properties)  
(IR study of five- and six-membered type cyclic imides)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



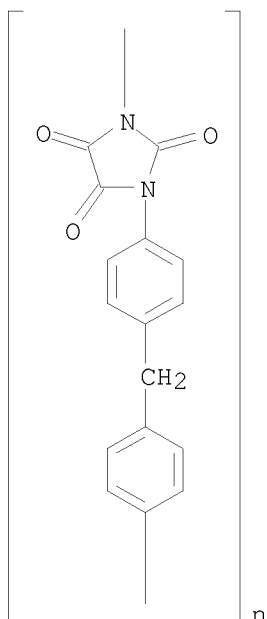
L4 ANSWER 149 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1995:302738 HCAPLUS  
DOCUMENT NUMBER: 122:68330  
TITLE: UV-hardenable solder resist ink  
INVENTOR(S): Inoe, Satoshi; Kato, Masayuki; Ikeda, Tadao; Hosoda, Jun  
PATENT ASSIGNEE(S): Tonen Kagaku Kk, Japan; Nitto Chemical Industry Co Ltd  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 06138657	A	19940520	JP 1991-285487	19911007
PRIORITY APPLN. INFO.:			JP 1991-285487	19911007
GI				



- AB A solder resist ink showing high sensitivity to UV and providing hardened images having improved adhesion to substrate and increased resistance to heat and acid comprises a poly(parabanic acid) resin having the repeating unit I [Z1, Z2 = O or NH but Z1 and Z2 can not be NH at the same time; X = II-V where R1-6 = H or methyl; X2, X3 = a bond, CH2, O, SO2, or C(CH3)2], an ethylenically unsatd. polymerizable compound, and a photopolymn. initiator. The ink is coated on a wiring board by printing, exposed to UV, and heating to form a cover coat.
- IT 37725-18-1D, reaction products with hydroxyethyl methacrylate  
 RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)  
 (UV-hardenable solder resist inks containing)
- RN 37725-18-1 HCAPLUS
- CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 150 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:289966 HCAPLUS

DOCUMENT NUMBER: 122:81372

TITLE: Preparation of cyclic urea derivatives as drugs

INVENTOR(S): Himmelsbach, Frank; Austel, Volkhard; Linz, Guenter;  
Pieper, Helmut; Guth, Brian; Mueller, Thomas;  
Weisenberger, Johannes

PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 125 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

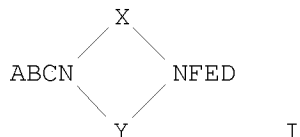
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 587134	A2	19940316	EP 1993-114401	19930908
EP 587134	A3	19940706		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 4230470	A1	19940414	DE 1992-4230470	19920911
DE 4302052	A1	19940728	DE 1993-4302052	19930126
DE 4309213	A1	19940929	DE 1993-4309213	19930322
FI 9303942	A	19940312	FI 1993-3942	19930909
CA 2105934	A1	19940312	CA 1993-2105934	19930910
NO 9303248	A	19940314	NO 1993-3248	19930910
AU 9346249	A	19940324	AU 1993-46249	19930910
ZA 9306689	A	19950310	ZA 1993-6689	19930910
HU 71496	A2	19951128	HU 1993-2577	19930910
US 5681841	A	19971028	US 1993-120008	19930910
CN 1092769	A	19940928	CN 1993-114711	19930911

Updated Search

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JP 06263740	A	19940920	JP 1993-226864	19930913
US 5880284	A	19990309	US 1997-864528	19970528
PRIORITY APPLN. INFO.:			DE 1992-4230470	A 19920911
			DE 1993-4302052	A 19930126
			DE 1993-4309213	A 19930322
			US 1993-120008	A3 19930910
OTHER SOURCE(S):		MARPAT 122:81372		
GI				

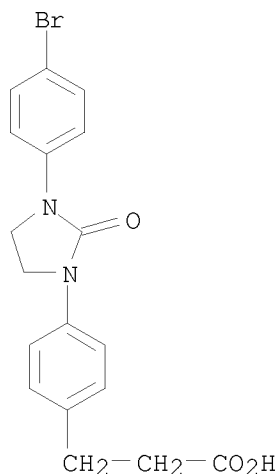


AB Title compds. [I; A = e.g., acylamidino, etc.; B = e.g., 1,4-azacycloheptylene, 1,4- piperidinylene, 1,4-piperazinylene, etc.; C = e.g., 1,4- piperidinylene, 1,2,3,4-tetrahydro-2,6-naphthylene, 1,4-bicyclo[2.2.2]octanylene, etc.; D = alkylene, 1,3-phenylene, 1,4-cyclohexylene, etc.; E = bond, CH:CH, alkylene, etc.; F = CO<sub>2</sub>H, alkoxy carbonyl, etc.; X = e.g., N-cyanocarbimino, etc.; Y = e.g., 1,2-cyclohexylene] were prepared as cell aggregation inhibitors. Thus, 2-(4-amidinophenyl)-4-[4-[2-(cyclohexyloxy carbonyl)ethyl]phenyl]-5-methyl-4H-1,2,4-triazol-3-one hydrochloride inhibited ex vivo thrombocyte aggregation in blood from rhesus monkeys after oral administration of 1mg/kg.

IT 160132-25-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, in preparation of cell aggregation inhibitor)

RN 160132-25-2 HCAPLUS

CN Benzenepropanoic acid, 4-[3-(4-bromophenyl)-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)



Updated Search

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L4 ANSWER 151 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1995:9652 HCAPLUS  
DOCUMENT NUMBER: 122:11106  
TITLE: Estimation of some physical parameters of  
poly(hydantoin)  
AUTHOR(S): Rajulu, A. Varada  
CORPORATE SOURCE: Polym. Phys. Lab., Sri Krishnadevaraya Univ.,  
Anantapur, 515 003, India  
SOURCE: Acta Ciencia Indica, Chemistry (1992), 18(4), 315-17  
CODEN: ACICDV; ISSN: 0253-7338  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB D., glass temperature, temperature of initial degradation, melting  
temperature, refractive  
index, stress optical coefficient, solubility parameter, and surface tension  
of the  
title polymer were estimated using empirical formulas and compared with those  
obtained from literature.  
IT 36247-75-3  
RL: PRP (Properties)  
(estimation of some phys. parameters of poly(hydantoin))  
RN 36247-75-3 HCAPLUS  
CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-  
1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-  
phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 152 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:680641 HCAPLUS  
DOCUMENT NUMBER: 121:280641  
TITLE: Preparation of N-arylazolones as tissue aggregation  
inhibitors  
INVENTOR(S): Himmelsbach, Frank; Pieper, Helmut; Austel, Volkhart;  
Linz, Guenter; Guth, Brian; Mueller, Thomas;  
Weisenberger, Johannes  
PATENT ASSIGNEE(S): Dr. Karl Thomae GmbH, Germany  
SOURCE: Ger. Offen., 46 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 4305388	A1	19940825	DE 1993-4305388	19930222
DE 4332168	A1	19950323	DE 1993-4332168	19930922

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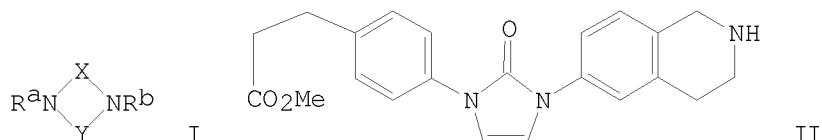
TW 384286	B	20000311	TW 1994-83101259	19940217
CA 2116068	A1	19940823	CA 1994-2116068	19940221
FI 9400806	A	19940823	FI 1994-806	19940221
NO 9400595	A	19940823	NO 1994-595	19940221
AU 9456324	A	19940825	AU 1994-56324	19940221
AU 673875	B2	19961128		
EP 612741	A1	19940831	EP 1994-102557	19940221
EP 612741	B1	19980610		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 06256343	A	19940913	JP 1994-22727	19940221
JP 3545446	B2	20040721		
ZA 9401159	A	19950821	ZA 1994-1159	19940221
HU 70768	A2	19951030	HU 1994-493	19940221
HU 222112	B1	20030428		
AT 167185	T	19980615	AT 1994-102557	19940221
ES 2118992	T3	19981001	ES 1994-102557	19940221
RU 2126002	C1	19990210	RU 1994-6007	19940221
PL 178215	B1	20000331	PL 1994-302302	19940221
CN 1099755	A	19950308	CN 1994-102252	19940222
CN 1048490	B	20000119		
US 5519036	A	19960521	US 1994-200125	19940222
IL 108733	A	19980104	IL 1994-108733	19940222
US 5612335	A	19970318	US 1995-434136	19950502
US 5827849	A	19981027	US 1996-768365	19961217

PRIORITY APPLN. INFO.:

DE 1993-4305388	A	19930222
DE 1993-4332168	A	19930922
US 1994-200125	A3	19940222
US 1995-434136	A3	19950502
DE 1996-19624069	A	19960617

OTHER SOURCE(S): MARPAT 121:280641

GI



AB Title compds. [I; Ra,Rb = AB; A = benzene ring-attached benzannellated N-containing heterocyclcyl; B = bond, alk(en)ylene, arylene, etc.; X = (N-substituted) C(:NH), CO, SO1-2, etc.; Y = alk(en)ylene, 1,2-cycloalk(en)ylene, 1,2-phenylene, etc.] were prepared Thus, 4-(MeO2CH2CH2C)C6H4NHCH2CH2OH and 6-aminoisoquinoline were condensed with N,N'-carbonyldiimidazole to give 4-(MeO2CH2CH2C)C6H4NH(CH2CH2OH)CONHR (R = 6-isoquinolinyloxy). 4-(MeO2CH2CH2C)C6H4NH[CH2CH2(OEt)2]CONHR (R = unchanged) was cyclized and the product hydrogenated in HOAc to give phenylisoquinolinyloxyimidazolone II.HOAc which had IC50 of 40nM against collagen-induced platelet aggregation in vitro.

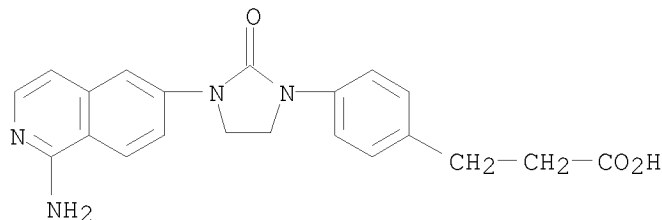
IT 158725-85-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of N-arylazolones as tissue aggregation inhibitors)

Updated Search

10501317

RN 158725-85-0 HCAPLUS  
CN Benzenepropanoic acid, 4-[3-(1-amino-6-isoquinolinyl)-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)



L4 ANSWER 153 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:579485 HCAPLUS  
DOCUMENT NUMBER: 121:179485  
TITLE: Preparation of labeled fibrinogen receptor antagonists.  
INVENTOR(S): Weisenberger, Johannes; Schubert, Hans Dieter; Switek, Karl Heinz; Linz, Guenter; Himmelsbach, Frank  
PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Germany  
SOURCE: Eur. Pat. Appl., 19 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 567967	A1	19931103	EP 1993-106725	19930426
EP 567967	B1	19960710		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
DE 4214245	A1	19931104	DE 1992-4214245	19920430
AT 140225	T	19960715	AT 1993-106725	19930426
ES 2092170	T3	19961116	ES 1993-106725	19930426
CA 2094963	A1	19931029	CA 1993-2094963	19930427
NO 9301528	A	19931029	NO 1993-1528	19930427
NO 180046	B	19961028		
NO 180046	C	19970205		
AU 9337153	A	19931104	AU 1993-37153	19930427
AU 670778	B2	19960801		
JP 06050977	A	19940225	JP 1993-100789	19930427
US 5677466	A	19971014	US 1995-477667	19950523
PRIORITY APPLN. INFO.:			DE 1992-4213930	A 19920428
			DE 1992-4214245	A 19920430
			US 1993-55176	B1 19930428

OTHER SOURCE(S): MARPAT 121:179485  
AB Fibrinogen receptor antagonists having binding affinity  $\geq$  that of 125I-fibrinogen, having in the presence of foreign protein an affinity (Kp) of  $< 500$  nM with respect to the receptor, and having  $\geq 1$  detectable atom, were prepared Thus, (3S,5S)-5-[(4'-amidino-3-bromo-4-



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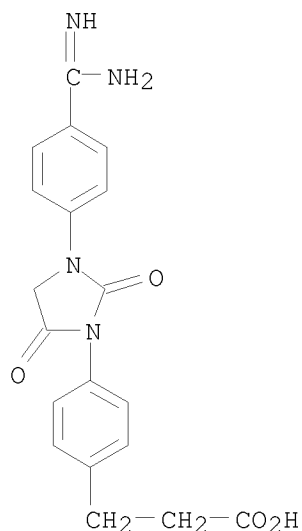
biphenyl)oxymethyl]-3-[(methoxycarbonyl)methyl]-2-pyrrolidinone hydrochloride (preparation given) in DMF was treated with tritium gas in the presence of Pd/C to give (3S,5S)-5-[(4'-amidino-3-tritio-4-biphenyl)oxymethyl]-3-[(methoxycarbonyl)methyl]-2-pyrrolidinone hydrochloride of 98.8% radiochem. purity. This was saponified with aqueous NaOH/MeOH to give (3S,5S)-5-[(4'-amidino-3-tritio-4-biphenyl)oxymethyl]-3-(carboxymethyl)-2-pyrrolidinone (3H-BIBU 52). A curve showing displacement of 3H-BIBU 52 by unlabeled BIBU 52 from human thrombocytes in the presence of plasma is given.

IT 157446-21-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as fibrinogen receptor antagonist)

RN 157446-21-4 HCAPLUS

CN Benzenepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenyl]-2,5-dioxo-1-imidazolidinyl]-, labeled with tritium (9CI) (CA INDEX NAME)



L4 ANSWER 154 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:436960 HCAPLUS

DOCUMENT NUMBER: 121:36960

TITLE: Polytetrafluoroethylene compositions, their products and preparation

INVENTOR(S): Myanami, Hiroshi; Sato, Munetake; Nakano, Kenji; Ikeda, Takaharu

PATENT ASSIGNEE(S): Nihon Valqua Kogyo Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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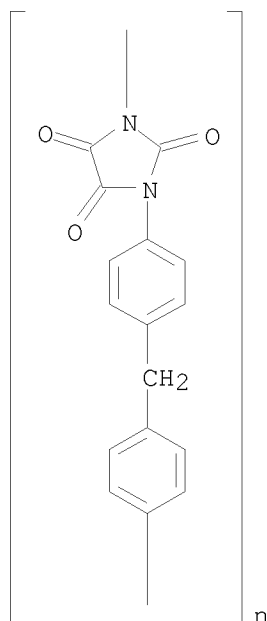
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Updated Search

10501317

JP 06057078                      A            19940301            JP 1992-231582                      19920807  
PRIORITY APPLN. INFO.:                      JP 1992-231582                      19920807  
AB    The title compns., giving products with good appearance and mech.  
      strength, useful for sealing compns., pipe lining of pharmaceutical  
      plants, semiconductors containers, etc. (no data), are prepared from  
      95.0-99.9% PTFE and 0.1-5.0% polyparabanic acid (I) by forming a I solution  
      in a solvent (e.g., DMF), dispersing powdered PTFE in the solution, mixing with  
      a poor solvent (e.g., water) to precipitate particles, and drying to remove the  
      solvents.  
IT    37725-18-1, PPA-M  
      RL: USES (Uses)  
      (PTFE containing, for moldings with good appearance and mech. strength)  
RN    37725-18-1    HCAPLUS  
CN    Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-  
      phenylene] (9CI)    (CA INDEX NAME)

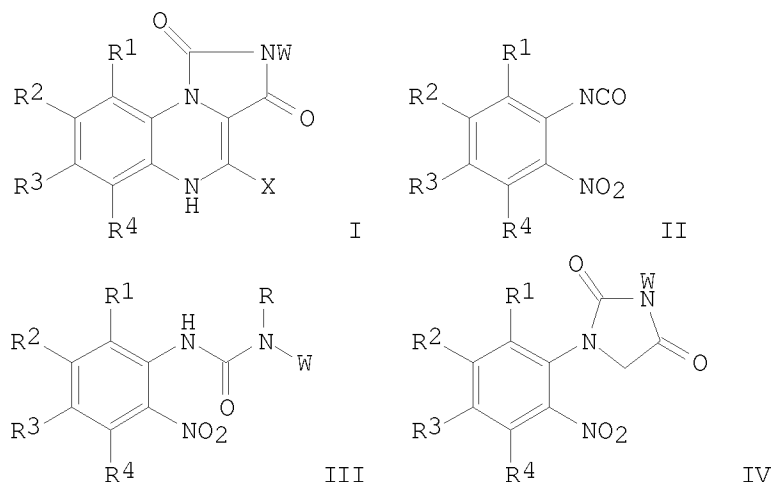


L4    ANSWER 155 OF 527    HCAPLUS    COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER:            1994:409421    HCAPLUS  
DOCUMENT NUMBER:            121:9421  
TITLE:                        Process for preparation of 2-arylimidazo[1,5-  
                                 a]quinoxaline-1,3(2H,5H)-diones binding to GABA<sub>A</sub>  
                                 receptors  
INVENTOR(S) :                Shaw, Kenneth  
PATENT ASSIGNEE(S) :        Neurogen Corp., USA  
SOURCE:                        Braz. Pedido PI, 19 pp.  
                                 CODEN: BPXXDX  
DOCUMENT TYPE:                Patent  
LANGUAGE:                      Portuguese  
FAMILY ACC. NUM. COUNT:      1  
PATENT INFORMATION:

Updated Search

10501317

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 9201596	A	19931103	BR 1992-1596	19920429
IL 101284	A	19970110	IL 1992-101284	19920318
IN 175219	A1	19950527	IN 1992-CA217	19920401
PRIORITY APPLN. INFO.:			BR 1992-1596	19920429
OTHER SOURCE(S):	MARPAT 121:9421			
GI				



AB Title compds. I [R1, R4 = H, halo, alkyl, alkoxy; X = H, halo, OH, (di)(alkyl)amino; W = (un)substituted Ph, thienyl, pyridyl; R2, R3 = H, halo, OH, amino, (un)substituted 1-indanyl, 4-(thio)chromanyl, or 1,2,3,4-tetrahydro-1-naphthyl, OR5, COR5, CO2R5, OCOR5, R5, CONR6R7, (CH2)nNR6R7, NR8CO2R9, C(OH)R10R11; R5, R7 = H, Ph, pyridyl, alkyl, phenylalkyl, pyridylalkyl; n = 0-2; R6 = H, alkyl; R8, R9 = H, Ph, pyridyl, alkyl, phenylalkyl; R10, R11 = alkyl, Ph, phenylalkyl] were prepared (45 examples). I are highly selective agonists, antagonists, inverse agonists, or prodrugs for cerebral GABA<sub>A</sub> receptors, and are useful for diagnosis or treatment of anxiety, convulsions, sleep disturbances, or benzodiazepine overdose, or for improving memory. Preparation of I involves 4-5 steps: (1) reaction of 2-nitrophenyl isocyanates II with amines WNH<sub>2</sub> to give (nitrophenyl)arylsureas III (R = H); (2) acylation of these with ClCH<sub>2</sub>COCl to give III (R = COCH<sub>2</sub>Cl); (3) cyclization of these with base to give imidazolidinediones IV; and (4-5) either sep. or combined reduction of the NO<sub>2</sub> group and cyclization with, e.g., DMF di-Me acetal. In tests for binding to rat cortical GABA<sub>A</sub> receptors in vitro, 5 selected I had IC<sub>50</sub> of 0.0024-0.016  $\mu$ M, e.g., 0.0095  $\mu$ M for I (R1-R4 = X = H, W = Ph), a preferred compound

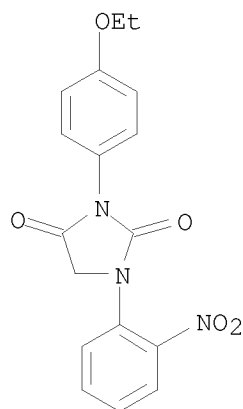
IT 142880-28-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
(hydrogenation or ethoxycarbonylation of, in preparation of GABAergic arylimidazoquinoxalinediones)

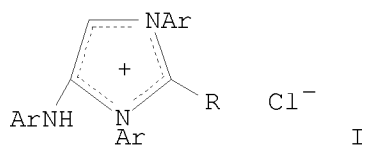
Updated Search

10501317

RN 142880-28-2 HCAPLUS  
CN 2,4-Imidazolidinedione, 3-(4-ethoxyphenyl)-1-(2-nitrophenyl)- (CA INDEX NAME)



L4 ANSWER 156 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:409248 HCAPLUS  
DOCUMENT NUMBER: 121:9248  
TITLE: Aminoamidines. IV. 1,3-Diaryl-4-arylaminoimidazolium chlorides from N1,N2-diaryl-N-arylglycinamidines  
AUTHOR(S): Korshin, E. E.; Soboleva, G. I.; Levin, Ya. A.; Podval'nyi, E. A.; Efremov, Yu. Ya.  
CORPORATE SOURCE: Inst. Org. Fiz. Khim. im. A. E. Arbuzova, Russia  
SOURCE: Zhurnal Organicheskoi Khimii (1993), 29(3), 577-87  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 121:9248  
GI

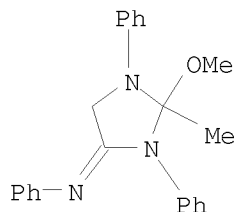


AB Reaction of N2,N2-diaryl-N-arylglycinamidines with RCOCl (R = Me, Et, Pr, decyl) and the Vilsmeier-Haack complex gave 1,3-diaryl-4-arylaminoimidazolium chlorides I (Ar = Ph, 4-MeC6H4, 4-MeOC6H4). Alkoxide anions add to the C2 atom of the cyclic system and in weakly basic media are hydrolyzed with cleavage of the heterocycle at the C2-N3 bond to give acylaminoglycinamidines.  
IT 155260-86-9P  
RL: SPN (Synthetic preparation); PREP (Preparation of preparation of)  
RN 155260-86-9 HCAPLUS

Updated Search

10501317

CN Benzenamine, N-(2-methoxy-2-methyl-1,3-diphenyl-4-imidazolidinylidene)-  
(CA INDEX NAME)



L4 ANSWER 157 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:245154 HCAPLUS  
DOCUMENT NUMBER: 120:245154  
TITLE: Aryl- and cycloalkyl-fused imidazopyrazinedione GABA<sub>A</sub>  
brain receptor ligands  
INVENTOR(S): Shaw, Kenneth; Hutchison, Alan  
PATENT ASSIGNEE(S): Neurogen Corp., USA  
SOURCE: PCT Int. Appl., 71 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9322314	A1	19931111	WO 1993-US3918	19930430
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, RO, RU, SD, SE, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5266698	A	19931130	US 1992-876502	19920430
AU 9341175	A	19931129	AU 1993-41175	19930430
US 5693801	A	19971202	US 1994-331561	19941028
US 5840888	A	19981124	US 1995-465693	19950606
PRIORITY APPLN. INFO.:			US 1992-876502	A1 19920430
			WO 1993-US3918	A 19930430
			US 1994-331561	A1 19941028

OTHER SOURCE(S): MARPAT 120:245154

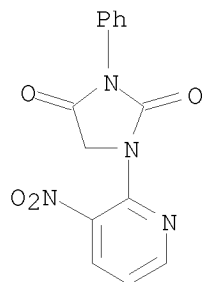
GI For diagram(s), see printed CA Issue.

AB The title compds. I [ring C = (un)substituted heteroaryl, aryl; W = (un)substituted Ph, (un)substituted thienyl, (un)substituted pyridyl; X = H, C1-6 alkyl], which are highly selective agonists, antagonists, or inverse agonists for GABA<sub>A</sub> brain receptors, useful in the diagnosis and treatment of anxiety (no data), sleep disorders (no data), seizure disorders (no data), benzodiazepine overdoses (no data), and memory enhancement (no data), are prepared Thus, 3-phenylimidazoline-2,4-dione was nitrated and the intermediate treated with tris(dimethylamino)methane, producing imidazopyridopyrazinedione II. II demonstrated IC<sub>50</sub> against tritiated flumazenil with GABA<sub>A</sub> receptor of 0.010  $\mu$ M.

Updated Search

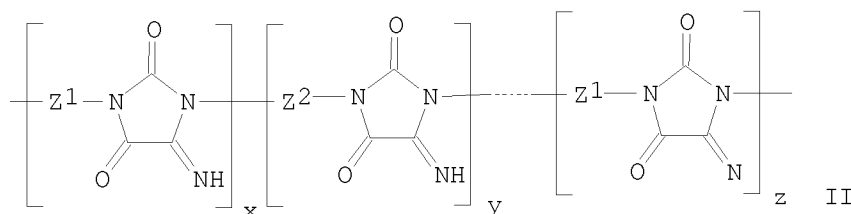
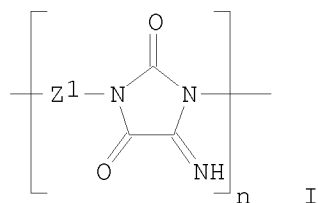
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IT 153710-29-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation as intermediate in preparation of imidazopyrazinedione GABAa  
receptor ligands)  
RN 153710-29-3 HCAPLUS  
CN 2,4-Imidazolidinedione, 1-(3-nitro-2-pyridinyl)-3-phenyl- (CA INDEX NAME)



L4 ANSWER 158 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1994:232142 HCAPLUS  
DOCUMENT NUMBER: 120:232142  
TITLE: Thermal transfer recording material with  
iminohydantoin-type polymer-based heat-resistant  
protective layer  
INVENTOR(S): Harada, Naryuki; Taniguchi, Keiji  
PATENT ASSIGNEE(S): Ricoh Kk, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 05246160	A	19930924	JP 1992-45474	19920303
PRIORITY APPLN. INFO.: GI			JP 1992-45474	19920303



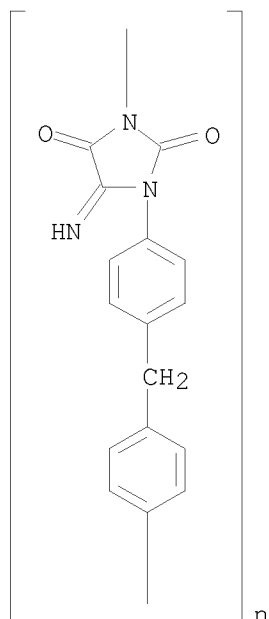
AB The title material comprise a support with coatings of a thermal-transfer ink layer on the front side and a heat-resistant protective layer based on an iminohydantoin-type polymer on the back side. The iminohydantoin polymer may have a structure unit I or II ( $Z_1-Z_x = C \geq 2$  divalent substituent,  $x \geq 2$ ). The material show good antisticking properties on recording and antiblocking properties on storing. Thus, a poly(phenylenesulfide) film was coated with poly(isophoroneiminohydantoin) on the back side and coated with a composition containing Kayaset Blue 714 (dye) and poly(vinyl butyral) resin on the front side to give a thermal-transfer sheet.

IT 81139-34-6  
 RL: USES (Uses)  
 (thermal-transfer recording material protective layer using)

RN 81139-34-6 HCAPLUS

CN Poly[(4-imino-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 159 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:8107 HCAPLUS

DOCUMENT NUMBER: 120:8107

TITLE: ESR studies on thioamides. Part 8. Radical anions of imidazolidinetriiones, piperazinediones and -tetraones, quinoxalinediones, and their sulfur analogs

AUTHOR(S): Brix, Peter; Voss, Juergen

CORPORATE SOURCE: Inst. Org. Chem., Univ. Hamburg, Hamburg, D-20146, Germany

SOURCE: Journal of Chemical Research, Synopses (1993), (8), 322-3

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ESR spectra of the title radical anions, prepared in situ by electrochem. reduction, were recorded. Exptl. spin ds. agreed with those calculated by HMO calcns. MNDO/CI calcns. overestd. the spin ds. at the O and S centers.

IT 6488-59-1

RL: PRP (Properties)  
(electrochem. reduction)

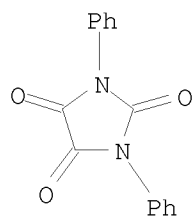
RN 6488-59-1 HCAPLUS

CN Imidazolidinetriione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

Updated Search



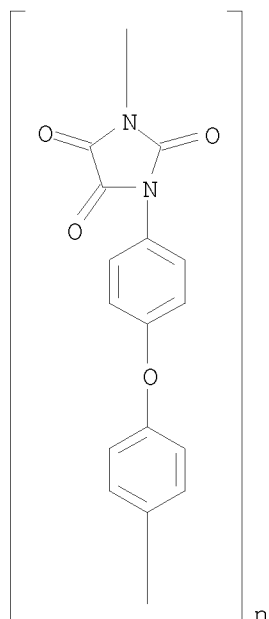
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L4 ANSWER 160 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:673616 HCAPLUS  
DOCUMENT NUMBER: 119:273616  
TITLE: Protective backings for thermal transfers  
INVENTOR(S): Harada, Naryuki; Taniguchi, Keiji  
PATENT ASSIGNEE(S): Ricoh Kk, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

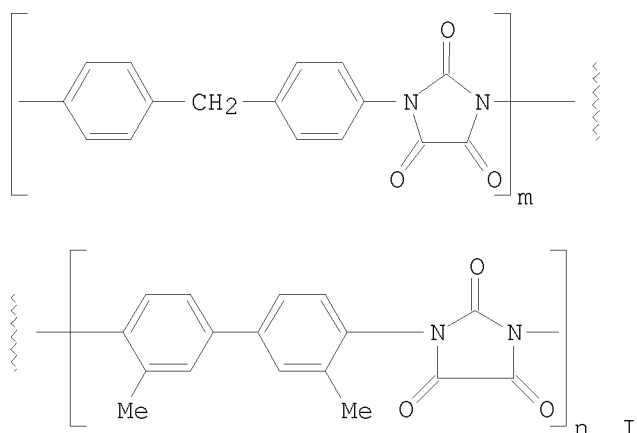
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 05162471	A	19930629	JP 1991-351947	19911212
PRIORITY APPLN. INFO.:				JP 1991-351947	19911212
AB	Heat-resistant coating layers contain poly(parabanic acids). Thus, a poly(phenylene sulfide) film was coated with poly(hexamethyleneparabanic acid) on 1 side and a sublimable ink on the other side.				
IT	31626-60-5				
	RL: USES (Uses)				
	(protective backings, for thermal transfers, heat-resistant)				
RN	31626-60-5 HCAPLUS				
CN	Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)				

10501317



L4 ANSWER 161 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:650921 HCAPLUS  
DOCUMENT NUMBER: 119:250921  
TITLE: Electrical conduction and breakdown in heat-resistive  
poly(parabanic acid) (PPA) films  
AUTHOR(S): Miyairi, K.  
CORPORATE SOURCE: Fac. Eng., Shinshu Univ., Wakasato, 500, Japan  
SOURCE: Proc. Int. Conf. Conduct. Breakdown Solid Dielectr.,  
4th (1992), 475-9. IEEE: New York, N. Y.  
CODEN: 59ERAT  
DOCUMENT TYPE: Conference  
LANGUAGE: English  
GI

10501317



AB Elec. conduction and breakdown measurements indicated that the chemical structure of poly(parabanic acids) (I; m= 5, 8, or 10; n= 5, 2 or 0) had a significant effect on the elec. properties. The exptl. results were explained in terms of thermal breakdown based on joule heating due to hopping conduction.

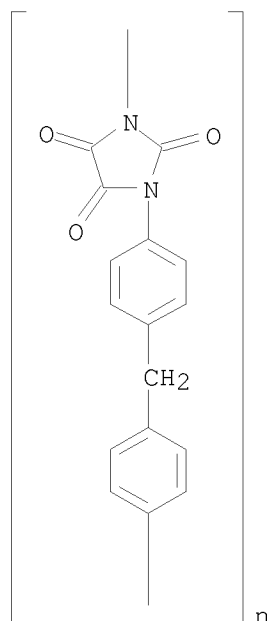
IT 37725-18-1

RL: PRP (Properties)

(elec. conduction and breakdown in heat-resistant)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



Updated Search

10501317

L4 ANSWER 162 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:649417 HCAPLUS

DOCUMENT NUMBER: 119:249417

TITLE: Thermal cyclization of N-(2-hydroxyethyl)-N'-phenylurea and its derivatives

AUTHOR(S): Nguyen Thi Huyen Tran; Truong Thi Kim Dung; Cu Thi Kim Oanh; Chu Pham Ngoc Son

CORPORATE SOURCE: Dep. Chem., Ho Chi Minh City Univ., Vietnam

SOURCE: Tap Chi Hoa Hoc (1991), 29(4), 4-9, 12

CODEN: TCHHDC; ISSN: 0378-2336

DOCUMENT TYPE: Journal

LANGUAGE: Vietnamese

AB The thermal degradation of N-(2-hydroxyethyl)-N-phenylurea and its derivs. occurs by two competitive ways: a back dissociation into amine and isocyanate followed by subsequent reactions and a cyclization reaction, yielding heterocyclic compds. The extent of these two reactions depends on the nature of the leaving group and the substituent on NCH<sub>2</sub>CH<sub>2</sub>X in the title compound PhNHCONY(CH<sub>2</sub>)<sub>n</sub>X (n = 2, 3; Y = H, Ph; X = OH, Cl, etc.). A detailed mechanistic study is given.

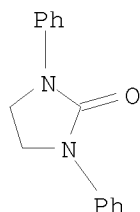
IT 728-24-5P, 1,3-Diphenyl-2-imidazolidone

RL: FORM (Formation, nonpreparative); PREP (Preparation)

(formation of, in thermal degradation of N-hydroxyethyl-N-phenylurea derivative)

RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 163 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:604136 HCAPLUS

DOCUMENT NUMBER: 119:204136

TITLE: Polyimides containing cyclic urea groups

INVENTOR(S): Wolf, Peter; Kraeh, Claudia

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Ger. Offen., 6 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4123245	A1	19930114	DE 1991-4123245	19910713
PRIORITY APPLN. INFO.:			DE 1991-4123245	19910713

AB The title polyimides, with specified structures and good thermal

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stability, are prepared by polymerization of tetracarboxylic dianhydrides with aromatic diamines in aprotic, dipolar solvents followed by cyclization of the prepolymer. Adding 50 mmol 4,4'-oxydiphthalic anhydride to 50 mmol N,N'-bis(4-aminophenyl)2-imidazolidinone in 150 mL N-methylpyrrolidone with cooling, stirring for 5 h at room temperature, and dehydrating the polymer with Ac<sub>2</sub>O-pyridine at 70° gave a polyurea-polyimide with weight loss at 520° (TGA) 10%.

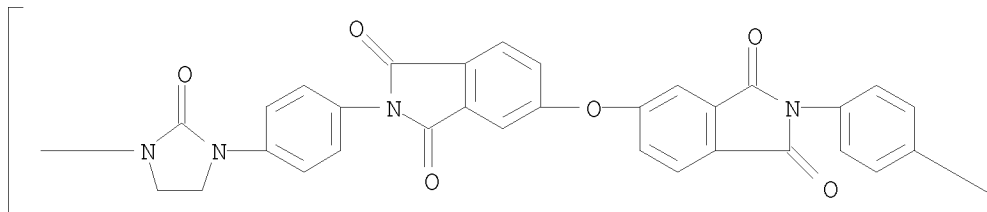
IT 150856-82-9P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manufacture of heat-resistant)

RN 150856-82-9 HCAPLUS

CN Poly[(2-oxo-1,3-imidazolidinediyl)-1,4-phenylene(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

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PAGE 1-B

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L4 ANSWER 164 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:581390 HCAPLUS

DOCUMENT NUMBER: 119:181390

TITLE: Polyhydrazides and poly(1,3,4-oxadiazoles) with parabanic structures

AUTHOR(S): Caraculacu, Georgeta; Gaina, Constantin; Gaina, Viorica; Caraculacu, Adrian A.; Diaconu, Ilie

CORPORATE SOURCE: Inst. Macromol. Chem. "P. Poni", Iasi, 6600, Rom.

SOURCE: European Polymer Journal (1993), 29(8), 1143-7

CODEN: EUPJAG; ISSN: 0014-3057

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polyhydrazides with parabanic structures were prepared by polycondensation between 1,3-bis[p-(chloroformyl)phenyl]parabanic acid (I) and hydrazine or dihydrazides. By thermal cyclization with polyphosphoric acid, the polyhydrazides were converted to poly(1,3,4-oxadiazoles) with parabanic

Updated Search

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structures. Model compds. from I and oxalyl chloride and monohydrazides were also investigated. Films obtained from these polymers exhibit elec. insulating properties and good thermal stability.

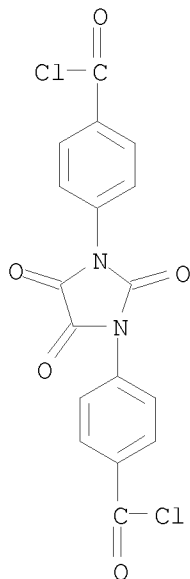
IT 119080-02-3, 1,3-Bis[p-(chloroformyl)phenyl]parabanic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation of, with hydrazides)

RN 119080-02-3 HCAPLUS

CN Benzoyl chloride, 4,4'-(2,4,5-trioxo-1,3-imidazolidinediyl)bis- (CA INDEX NAME)



L4 ANSWER 165 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:497369 HCAPLUS

DOCUMENT NUMBER: 119:97369

TITLE: Heat-resistant parabanic acid polymer sheets and their manufacture

INVENTOR(S): Ichikawa, Rinjiro; Hirata, Junichi; Ebina, Keisuke; Doi, Shunichi

PATENT ASSIGNEE(S): Fujimori Industry Co., Ltd., Japan; Tonen Chemical Corp.; Nitto Chemical Industry Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

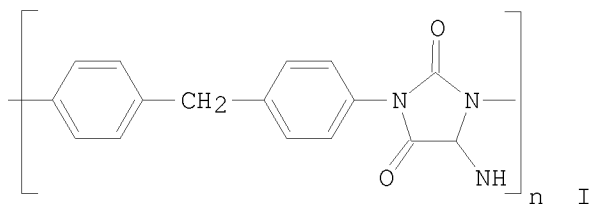
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04337339	A	19921125	JP 1991-138436	19910514
PRIORITY APPLN. INFO.: GI			JP 1991-138436	19910514

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AB The title sheets are prepared by sandwiching dispersions containing C fibers  
and

parabanic acid polymers (A) between 2 films having no adhesion to A,  
pressing the laminate using 2 rolls, and removing the films from the  
laminate. A dispersion containing 100 parts I and 6 parts C fibers was  
sandwiched between 2 PET films and pressed to give a sheet with shrinkage  
0.1% after 10 min at 260°.

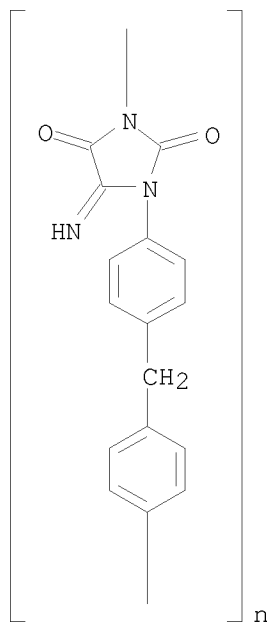
IT 81139-34-6P

RL: PREP (Preparation)

(carbon fiber-reinforced sheets, heat-resistant, manufacture of)

RN 81139-34-6 HCAPLUS

CN Poly[(4-imino-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-  
phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 166 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:459854 HCAPLUS

DOCUMENT NUMBER: 119:59854

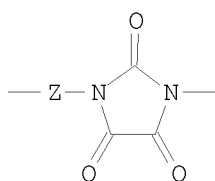
TITLE: Rewritable thermal recording media with poly(parabanic  
acid)-based adhesive layer

Updated Search

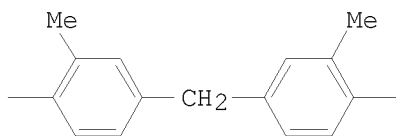
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INVENTOR(S): Watanabe, Jiro; Kijima, Atsushi; Nakato, Juji  
PATENT ASSIGNEE(S): Toppan Printing Co Ltd, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05085044	A	19930406	JP 1991-250840	19910930
PRIORITY APPLN. INFO.: GI			JP 1991-250840	19910930



I



III

AB The title media are prepared by forming a recording layer containing an organic low-mol.-weight substance dispersed in a resin, the transparency of which reversibly changes with temperature, on a support with a reflection layer of a metal thin film through an adhesive layer based on a poly(parabanic acid) resin I [Z = p-C<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>-p, p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p (II), III]. The adhesive layer prevents the deterioration of the reflection layer, and the media provide high contrast images and show good durability in repeated use. Thus, a polyester film with Al layer was coated with PPA-M [I (Z = II)], and overcoated with a composition containing behenic acid, stearic acid, and S-Lec

C (vinyl chloride-vinyl acetate copolymer) to give a rewritable thermal recording sheet.

IT 148798-65-6

RL: USES (Uses)

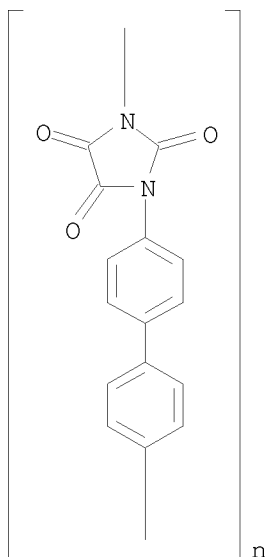
(rewritable thermal recording material adhesive layer using, PPA-D)

RN 148798-65-6 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)[1,1'-biphenyl]-4,4'-diyl] (9CI)  
(CA INDEX NAME)



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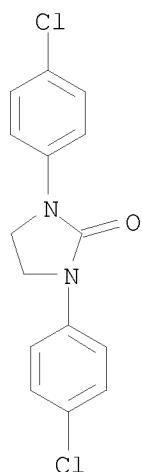


L4 ANSWER 167 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:263846 HCAPLUS  
DOCUMENT NUMBER: 118:263846  
TITLE: Electrostatic image developer toner  
INVENTOR(S): Tanaka, Katsuhiko; Doi, Michoshi  
PATENT ASSIGNEE(S): Canon Kk, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04343365	A	19921130	JP 1991-142764	19910520
PRIORITY APPLN. INFO.:			JP 1991-142764	19910520
AB	The toner contains a binding agent, a coloring agent, and polyurea containing a repeating unit from an urea derivative having 2 nitrogen atoms linked to form a heterocycle via a binding group.			
IT	5198-55-0			
	RL: USES (Uses)			
	(electrostatog. developer toner containing)			
RN	5198-55-0 HCAPLUS			
CN	2-Imidazolidinone, 1,3-bis(4-chlorophenyl)- (CA INDEX NAME)			

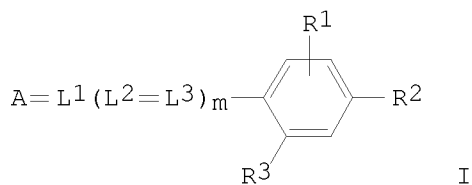
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L4 ANSWER 168 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:201924 HCAPLUS  
DOCUMENT NUMBER: 118:201924  
TITLE: Silver halide photographic material  
INVENTOR(S): Nakamura, Hiroshi; Yamada, Taketoshi; Wakasugi, Yasuhiro; Aritomi, Yuji  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04307540	A	19921029	JP 1991-99627	19910404
PRIORITY APPLN. INFO.:			JP 1991-99627	19910404

GI

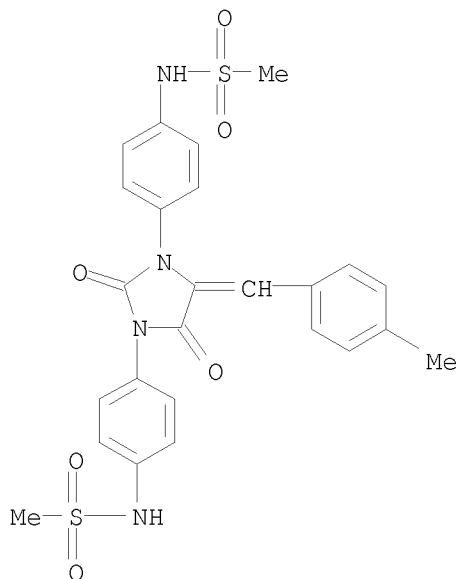


AB One or more photog. constituent layers in the title material contain a dispersion of solid particles of a compound represented by general structure I. For I, A = a group derived from rhodamine, hydantoin, etc.; L1-L3 = a methine group; m = 0 or 1; R1-R3 = H, (substituted) alkyl, aryl, etc. The title material is highly stable.

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IT 147002-65-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(photog. materials containing)  
RN 147002-65-1 HCAPLUS  
CN Methanesulfonamide, N,N'-[[4-[(4-methylphenyl)methylene]-2,5-dioxo-1,3-imidazolidinediyl]di-4,1-phenylene]bis- (9CI) (CA INDEX NAME)

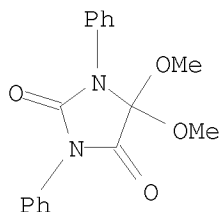


L4 ANSWER 169 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:147511 HCAPLUS  
DOCUMENT NUMBER: 118:147511  
TITLE: 2,2-Dialkoxy-Δ<sup>3</sup>-1,3,4-oxadiazolines: convenient thermal sources of dialkoxy carbenes  
AUTHOR(S): El-Saidi, Manal; Kassam, Karim; Pole, David L.; Tadey, Tanya; Warkentin, John  
CORPORATE SOURCE: Dep. Chem., McMaster Univ., Hamilton, ON, L8S 4M1, Can.  
SOURCE: Journal of the American Chemical Society (1992), 114(22), 8751-2  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 118:147511  
AB 2-Alkoxy-2-methoxy-5,5-dimethyl-Δ<sup>3</sup>-1,3,4-oxadiazolines I (R = Me, Et, CH<sub>2</sub>CH<sub>2</sub>C.tplbond.CH) were synthesized by oxidative cyclization of the methoxycarbonyl hydrazone of acetone with lead tetraacetate in the presence of an alc. I undergo thermal decomposition at 100° in solution by consecutive unimol. processes. In the first step, N<sub>2</sub> is lost in a concerted cycloreversion that forms a carbonyl ylide. The ylide was trapped by intramol. cycloaddn. to an alkyne group. In the second step, the carbonyl ylide fragments form acetone and an alkoxymethoxycarbene. The intermediacy of the latter was demonstrated by interception of dimethoxycarbene with traps (PhNCO, PhOH) to form known adducts.

Updated Search

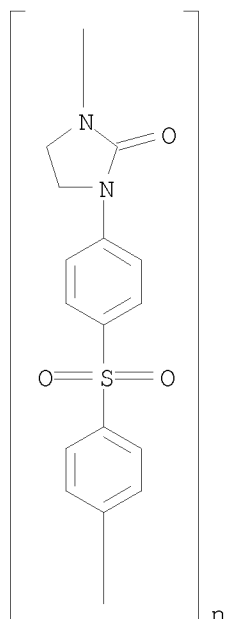
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IT 43109-63-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 43109-63-3 HCAPLUS  
CN 2,4-Imidazolidinedione, 5,5-dimethoxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 170 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:102717 HCAPLUS  
DOCUMENT NUMBER: 118:102717  
TITLE: New polymer synthesis. 63. Polycondensations of  
silylated imidazolidone-2 and benzimidazolidone-2  
AUTHOR(S): Kricheldorf, Hans R.; Stober, Olaf  
CORPORATE SOURCE: Inst. Tech. Makromol. Chem., Univ. Hamburg, Hamburg,  
2000/13, Germany  
SOURCE: European Polymer Journal (1992), 28(11), 1377-82  
CODEN: EUPJAG; ISSN: 0014-3057  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB N,N-Bis(trimethylsilyl)imidazolidone-2 is significantly more nucleophilic  
than imidazolidone itself and undergoes polycondensations with  
dicarboxylic acid dichlorides in bulk. The resulting poly(N-  
acylimidazolidones) are semicryst. materials, soluble in acidic solvents.  
Cocondensation with silylated diphenols and activated difluoroaroms. (such  
as 2,6-difluoropyridine, 4,4'-difluorodiphenylsulfone, or  
2,6-difluorobenzonitrile) yields modified aromatic polyethers with high glass  
transition temps. N,N'-Bis(trimethylsilyl)benzimidazolidone-2 is not  
reactive enough to yield high-mol.-weight polymers.  
IT 145756-78-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 145756-78-1 HCAPLUS  
CN Poly[(2-oxo-1,3-imidazolidinediyl)-1,4-phenylenesulfonyl-1,4-phenylene]  
(9CI) (CA INDEX NAME)

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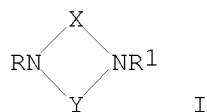
L4 ANSWER 171 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:101980 HCAPLUS  
DOCUMENT NUMBER: 118:101980  
TITLE: Preparation of cyclic ureas as cell-cell and  
cell-matrix interaction inhibitors  
INVENTOR(S): Himmelsbach, Frank; Pieper, Helmut; Austel, Volkhard;  
Linz, Guenter; Mueller, Thomas; Weisenberger,  
Johannes; Eisert, Wolfgang  
PATENT ASSIGNEE(S): Thomae, Dr. Karl, G.m.b.H., Germany  
SOURCE: Eur. Pat. Appl., 91 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 503548	A1	19920916	EP 1992-104045	19920310
EP 503548	B1	19970604		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE				
DE 4107857	A1	19920917	DE 1991-4107857	19910312
FI 9201030	A	19920913	FI 1992-1030	19920310
AT 154013	T	19970615	AT 1992-104045	19920310
ES 2104754	T3	19971016	ES 1992-104045	19920310
CA 2062655	A1	19920913	CA 1992-2062655	19920311
NO 9200957	A	19920914	NO 1992-957	19920311
AU 9212803	A	19920917	AU 1992-12803	19920311
AU 654340	B2	19941103		
HU 60722	A2	19921028	HU 1992-823	19920311
ZA 9201804	A	19930913	ZA 1992-1804	19920311

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IL 101203	A	19951231	IL 1992-101203	19920311
JP 04368372	A	19921221	JP 1992-53171	19920312
PRIORITY APPLN. INFO.:			DE 1991-4107857	A 19910312
OTHER SOURCE(S):	CASREACT 118:101980; MARPAT 118:101980			
GI				



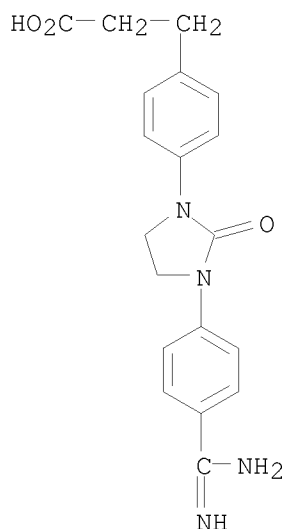
AB Title compds. [I; X = CO, CS, SO, SO<sub>2</sub>, (substituted) carbimino; Y = (R<sub>2</sub>, R<sub>3</sub>-substituted) C<sub>2</sub>-4 alkylene, alkenylene, C<sub>4</sub>-7 cycloalkenylene, CONH, CH:N, etc.; one of R-R<sub>3</sub> = A-B-C; A = (substituted) aminoalkyl, amino, amidino, guanidino, cyano, cyanoalkyl; B = bond, alkylene, alkenylene, (substituted) phenylene, pyridinylene, pyrimidinylene, pyrazinylene, cyclopropylene, biphenylene, etc.; C = (substituted) alkylene, alkenylene, alkylencarbonyl, phenylene, indanylene, tetrahydronaphthalenediyl, pyridinylene, pyrimidinylene, pyrazinylene, pyridazinylene, triazinylene, cycloalkylene, etc.; another of R-R<sub>3</sub> = F-E-D; D = alkylene, alkenylene, (substituted) phenylene, pyridinylene, pyrimidinylene, pyrazinylene, pyridazinylene, triazinylene, cycloalkylene, etc.; E = bond, (substituted) alkylene, phenylene, pyridinylene, pyrimidinylene, pyrazinylene, pyridazinylene, triazinylene, cycloalkylene, etc.; F = CO<sub>2</sub>H, (substituted) alkoxycarbonyl; the third of R-R<sub>3</sub> = H, alkyl, perfluoroalkyl, aralkyl, (hetero)aryl, etc.; the fourth of R-R<sub>3</sub> = H, alkyl, aralkyl, aryl, heteroaryl; RR<sub>2</sub>, RR<sub>3</sub>, R<sub>1</sub>R<sub>2</sub>, R<sub>1</sub>R<sub>3</sub> = bond], were prepared Thus, 1-(4'-amidino-4-biphenyl)-3-methoxycarbonylmethylimidazolidin-2-one hydrochloride was stirred with 1N NaOH in MeOH to give 1-(4'-amidino-4-biphenyl)-3-carboxymethylimidazolidin-2-one. I inhibited collagen-induced blood platelet aggregation with IC<sub>50</sub> = 30 - >100,000 nM. Generic drug formulations are given.

IT 144654-62-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as cell-cell and cell-matrix interaction inhibitor)

RN 144654-62-6 HCAPLUS

CN Benzenepropanoic acid, 4-[3-[4-(aminoiminomethyl)phenyl]-2-oxo-1-imidazolidinyl]- (CA INDEX NAME)

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L4 ANSWER 172 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1993:61072 HCAPLUS  
DOCUMENT NUMBER: 118:61072  
TITLE: Bonding polyolefin foam surface to substrates by vacuum molding  
INVENTOR(S): Mori, Masahito; Torii, Kosuke; Okamoto, Koichi  
PATENT ASSIGNEE(S): Sunstar Giken K.K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04110135	A	19920410	JP 1990-230887	19900830
JP 2923010	B2	19990726		

PRIORITY APPLN. INFO.: JP 1990-230887 19900830

AB Title methods, useful for preparation of automobile interiors, comprise the steps of applying reaction products of hydrogenated poly(butadiene glycol) and polyisocyanates as adhesive primers onto polyolefin foam surface, then coating the surface with polyurethanes containing mainly polyester polyol units comprising mainly hexane glycol and adipic acid, and vacuum molding the material together with a base material. Thus, applying Polytail H containing 40 phr MDI and 0.1 phr dibutyltin dilaurate in PhMe solution on

PPA-M (polyolefin foam sheet), then coating the sheet with Desmocoll 500 in MEK solution, and vacuum molding with ABS sheet gave a laminate having layer bonding strength 2.1 kg/25mm.

IT 37725-18-1

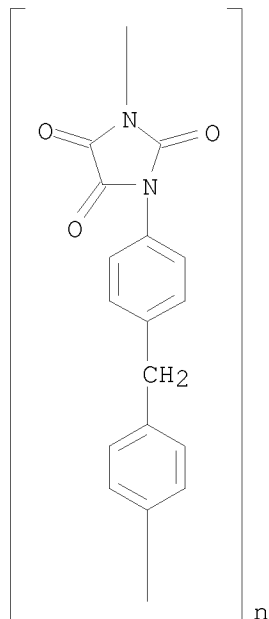
RL: TEM (Technical or engineered material use); USES (Uses)  
(cellular, bonding of, to substrates, by vacuum molding,  
polyester-polyurethane adhesives for)

RN 37725-18-1 HCAPLUS

Updated Search

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CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



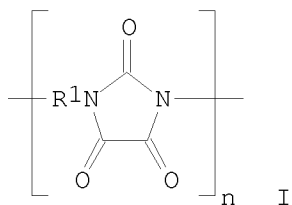
L4 ANSWER 173 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1992:614127 HCAPLUS  
DOCUMENT NUMBER: 117:214127  
TITLE: Heat-resistant polyparabanic acid-based adhesive compositions  
INVENTOR(S): Matsuda, Itsuo; Miki, Tetsuhiro; Maezawa, Hideki  
PATENT ASSIGNEE(S): Toshiba Chemical Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 04122784	A	19920423	JP 1990-243335	19900913
PRIORITY APPLN. INFO.: GI			JP 1990-243335	19900913

Updated Search



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AB The title compns., showing good water resistance, adhesion, and elec. properties and useful in the manufacture of flexible printed circuit boards, contain 5-70% polyparabanic acids I (R1 = p-C6H4CH2-p-C6H4, p-C6H4O-p-C6H4, C6H3Me), 30-95% thermosetting resins prepared from unsatd. bisimides, aminophenols, and anilines, and curing accelerators. An adhesive was prepared by heating bis(4-maleimidophenyl) ether 36.03, p-aminophenol 6.0, and PhNH2 4.15 g in dioxane under reflux and blending with 25% Sollac XT 104-SRK solution 32.6, 2-ethyl-4-methylimidazole 0.2, and bis(4-aminophenyl) sulfone 1.2 g. A Kapton film was coated with the composition, dried, and hot pressed with Cu foil to give peel strength 0.95 kg/cm initially, 0.56 kg/cm after 10 days at 150°, and 1.02 kg/cm after immersion in a solder bath at 260°.

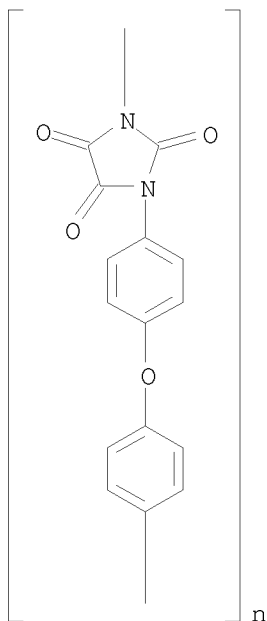
IT 31626-60-5

RL: USES (Uses)

(adhesives containing, for polyimide film in circuit board)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



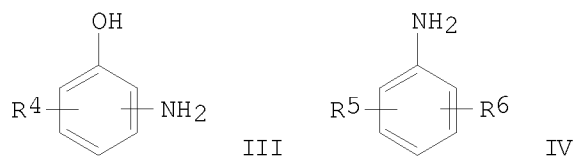
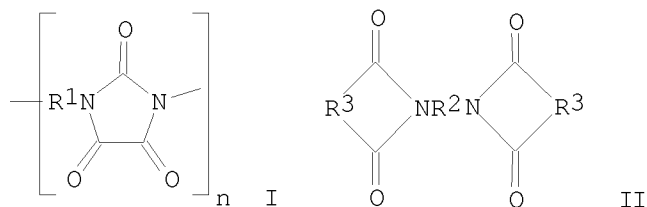
L4 ANSWER 174 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

Updated Search

10501317

ACCESSION NUMBER: 1992:614126 HCAPLUS  
 DOCUMENT NUMBER: 117:214126  
 TITLE: Heat-resistant poly(parabanic acid)-based adhesive compositions  
 INVENTOR(S): Matsuda, Itsuo; Miki, Tetsuhiro; Maezawa, Hideki  
 PATENT ASSIGNEE(S): Toshiba Chemical Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04122716	A	19920423	JP 1990-243336	19900913
PRIORITY APPLN. INFO.: GI			JP 1990-243336	19900913

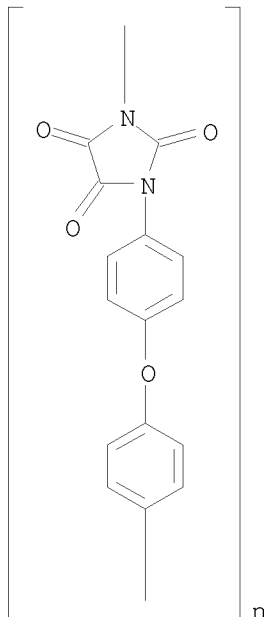


AB The title compns. with excellent moisture resistance, adhesion, and elec. properties, useful in manufacture of flexible printed circuit boards, comprise (A) poly(parabanic acids) I (R1 = p-C6H4CH2C6H4-p, p-C6H4O-C6H4-p, C6H3Me), (B) reaction products of bisimides II (R2 = C<sub>≥</sub>2 divalent group; R3 = organic group containing C-C double bond), aminophenols III (R4 = H, halo, alkyl), and anilines IV (R5-6 = H, halo, active H-free organic group), (C) compds. containing  $\geq 2$  epoxy groups, and (D) curing accelerators, at A/(A + B + C) weight ratio 0.05-0.70. Thus, heating maleic acid 4,4'-dimaleimidodiphenyl ether 36.03, p-aminophenol 6.0, and PhNH<sub>2</sub> 4.15 g in dioxane under reflux for 12 h, adding 30 g Epikote 828, stirring for 30 min, cooling, and blending with 25% Sollac XT 104-SRK solution 45.6, 2-ethyl-4-methylimidazole 0.3, and 4,4'-diaminodiphenyl sulfone 1.2 g gave title composition A Kapton film was coated with the composition, dried, and hot pressed with a Cu-clad etched laminate to give a test piece showing peel strength 0.84 kg/cm initially, 0.58 kg/cm after heated at 150° for

Updated Search

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10 days, and 0.87 kg/cm after immersed in a solder bath at 260°.  
IT 31626-60-5  
RL: USES (Uses)  
(interpenetrating networks with epoxy resins, adhesives, heat- and  
moisture-resistant, for flexible printed circuit boards)  
RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



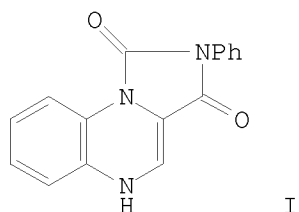
L4 ANSWER 175 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1992:490325 HCAPLUS  
DOCUMENT NUMBER: 117:90325  
TITLE: imidazoquinoxalines, a method for their preparation  
and use as selective GABA agonists, antagonists or  
inverse agonists of GABA receptors and for the  
treatment of anxiety, sleep disorders, seizure  
disorders or for memory enhancement  
INVENTOR(S): Shaw, Kenneth  
PATENT ASSIGNEE(S): Neurogen Corp., USA  
SOURCE: PCT Int. Appl., 54 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9207853	A1	19920514	WO 1991-US7881	19911031
W: CA, JP, US				

Updated Search

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RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE  
US 5130430 A 19920714 US 1990-606769 19901031  
EP 555391 A1 19930818 EP 1992-900873 19911031  
EP 555391 B1 20000712  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE  
JP 06502639 T 19940324 JP 1992-500804 19911031  
CA 2094805 C 19951226 CA 1991-2094805 19911031  
AT 194619 T 20000715 AT 1992-900873 19911031  
ES 2148169 T3 20001016 ES 1992-900873 19911031  
SK 278870 B6 19980408 SK 1992-780 19920316  
CN 1076930 A 19931006 CN 1992-102338 19920331  
CN 1034174 B 19970305  
RO 109943 B1 19950728 RO 1992-573 19920422  
US 5744602 A 19980428 US 1995-440696 19950515  
US 6268496 B1 20010731 US 1999-400060 19990921  
PRIORITY APPLN. INFO.: US 1990-606769 A2 19901031  
WO 1991-US7881 W 19911031  
US 1993-50068 B1 19930429  
US 1995-440696 A1 19950515  
US 1998-67112 B1 19980427  
OTHER SOURCE(S): CASREACT 117:90325; MARPAT 117:90325  
GI



AB Certain imidazoquinoxaline compds. are claimed. These compds. are selective agonists or antagonists or inverse agonists of GABA receptors; they are useful in the treatment of anxiety, sleep disorders, seizure disorders, for the enhancement of memory, and treatment of benzodiazepine overdoses (no data). Treatment of 1-(2-nitrophenyl)-3-phenylimidazoline-2,4(1H,3H)-dione in DMF with N,N-dimethylformamide di-Me acetal gave 2-phenylimidazo[1,5-a]quinoxaline-1,3(2H,5H)dione (I). The biol. activity of I was not tested.

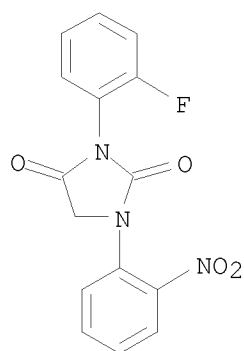
IT 142880-27-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation reaction of, with DMF di-Me acetal)

RN 142880-27-1 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(2-fluorophenyl)-1-(2-nitrophenyl)- (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 176 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:42250 HCAPLUS

DOCUMENT NUMBER: 116:42250

TITLE: Hydantoin group-containing polythioarylenes

INVENTOR(S): Koehler, Burkhard; Merten, Rudolf; Jonas, Friedrich; Reinking, Klaus

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 6 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4007861	A1	19910919	DE 1990-4007861	19900313
PRIORITY APPLN. INFO.:			DE 1990-4007861	19900313

AB Polythioarylenes with low crystallinity and high glass temperature are prepared by

polymerizing 0.1-90% halogen- or imide group-terminated hydantoin oligomer (d.p. 2-1000) with 99.9-10% aromatic dihalides and sulfide sources in dipolar, aprotic solvents. Stirring 531.5 g p-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>, 1149.3 g Na<sub>2</sub>S.3H<sub>2</sub>O, 325 g H<sub>2</sub>O, 4 g NaOH, 141.1 g caprolactam, and 2.5 L N-methylcaprolactam at 215° with distillation of H<sub>2</sub>O, adding 200 g 1,1'-(methylenedi-p-phenylene)bis[3-(3,4-dichlorophenyl)-5,5-dimethylhydantoin], and heating at 240° for 9 h gave a polythiophenylene with melt viscosity 21 Pa-s, crystallization temperature 194°, glass temperature 88°, and m.p. 260°; vs. 90, 235, 88, and 281, resp., for polythio-p-phenylene).

IT 138216-46-3P

RL: IMF (Industrial manufacture); PREP (Preparation)

(manufacture of, with high glass temperature and low crystallization temperature)

RN 138216-46-3 HCAPLUS

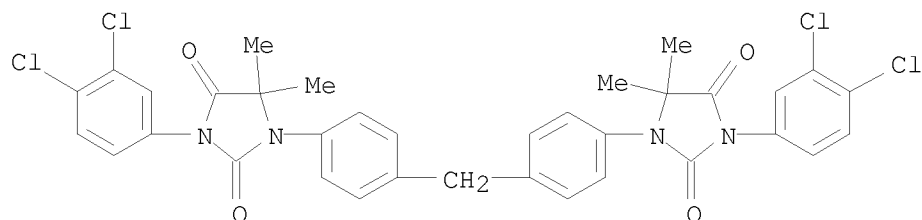
CN 2,4-Imidazolidinedione, 1,1'-(methylenedi-4,1-phenylene)bis[3-(3,4-dichlorophenyl)-5,5-dimethyl-, polymer with 1,4-dichlorobenzene and sodium sulfide (Na<sub>2</sub>S) (9CI) (CA INDEX NAME)

CM 1

Updated Search

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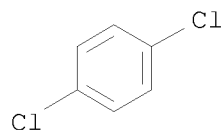
CRN 138216-45-2  
CMF C35 H28 Cl4 N4 O4



CM 2  
CRN 1313-82-2  
CMF Na2 S

Na<sup>+</sup> S<sup>-</sup> Na

CM 3  
CRN 106-46-7  
CMF C6 H4 Cl2



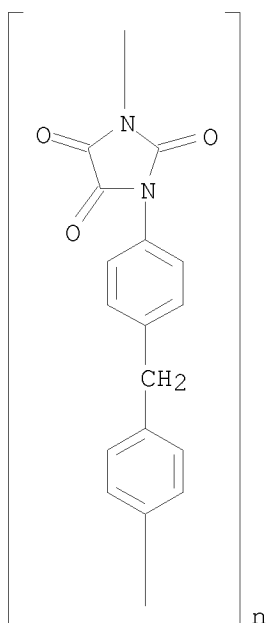
L4 ANSWER 177 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1992:23086 HCAPLUS  
DOCUMENT NUMBER: 116:23086  
TITLE: Transfer ink ribbons and their manufacture and regeneration  
INVENTOR(S): Nakamura, Akio; Kuroiwa, Kinji  
PATENT ASSIGNEE(S): Shin-Etsu Polymer Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Updated Search

10501317

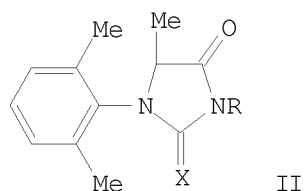
JP 03213385                    A            19910918            JP 1990-9053                    19900118  
PRIORITY APPLN. INFO.:                    JP 1990-9053                    19900118  
AB    The title ribbons, suitable for electrostatic regeneration with powdered ink, comprise a base film, an electrode layer, a light semiconducting layer, and a hot-melt ink layer. A PPA-M (polyparabanic acid) film was deposited with Al, coated with a Tuvical 210 (N-vinylcarbazole polymer) composition, and coated with an ink to form a ribbon.  
IT    37725-18-1, PPA-M  
      RL: USES (Uses)  
         (transfer ink ribbons contg, for regeneration with powdered ink)  
RN    37725-18-1    HCAPLUS  
CN    Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI)    (CA INDEX NAME)



L4    ANSWER 178 OF 527    HCAPLUS    COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER:            1991:656586    HCAPLUS  
DOCUMENT NUMBER:            115:256586  
TITLE:                        Acylation of N-(2,6-dimethylphenyl)- $\alpha$ -alanine  
                                 methyl ester with sp-hybridized carbonic acid  
                                 derivatives  
AUTHOR(S):                    Martin, D.  
CORPORATE SOURCE:            Biol. Zentralanst. Berlin, Kleinmachnow, O-1532,  
                                 Germany  
SOURCE:                        Journal fuer Praktische Chemie (Leipzig) (1991),  
                                 333(2), 261-6  
                                 CODEN: JPCEAO; ISSN: 0021-8383  
DOCUMENT TYPE:                Journal  
LANGUAGE:                      German  
GI

Updated Search

10501317



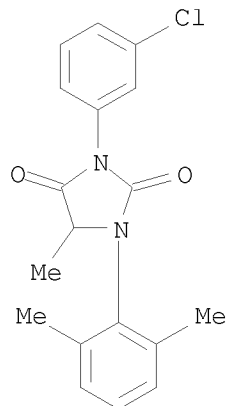
AB 2,6-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>NHCHMeCO<sub>2</sub>Me (I) reacts with RNC (R = Bu, 3-ClC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>, X = O; R = Ph, X = S) to yield the imidazolidinones II whereas with ClSO<sub>2</sub>NCO, 2,6-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>N(CONHSO<sub>2</sub>Cl)CHMeCO<sub>2</sub>Me is formed. Cyanation of I takes place with PhOCN and BrCN. Consecutive reactions of the primary products are described.

IT 136672-62-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 136672-62-3 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(3-chlorophenyl)-1-(2,6-dimethylphenyl)-5-methyl-  
(CA INDEX NAME)



L4 ANSWER 179 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:584913 HCAPLUS

DOCUMENT NUMBER: 115:184913

TITLE: Selective separation membranes of polyparabanic acids

INVENTOR(S): Maeda, Yasushi

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

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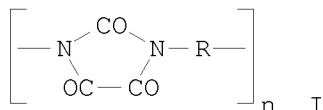
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Updated Search



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WO 9105602	A1	19910502	WO 1990-JP1331	19901016
W: DE, JP, US				
DE 4091840	T0	19911010	DE 1990-4091840	19901016
DE 4091840	B4	20050317		
US 5221482	A	19930622	US 1990-689281	19901016
JP 2918687	B2	19990712	JP 1990-513978	19901016
PRIORITY APPLN. INFO.:			JP 1989-264852	A 19891016
			WO 1990-JP1331	W 19901016
GI				



AB The title membranes useful for liquid mixture separation are prepared from polyparabanic acids I (R = divalent organic group, optionally containing sulfonic acid group) or their blends with sulfonic acid-containing polymers. Thus, a 30- $\mu\text{m}$  membrane of poly(2,4,5-trioxo-1,3-imidazolidinediyl-1,4-phenylenemethylene-1,4-phenylene) had separation factor (in water-AcOH osmotic vaporization of 80% AcOH at 70° with low-pressure side at 1 mm Hg) 30.1 and permeability 0.027 kg/m<sup>2</sup>-h.

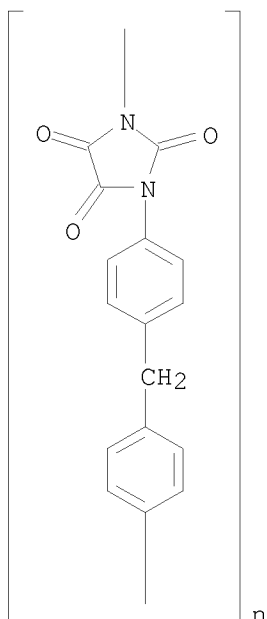
IT 37725-18-1, Poly(2,4,5-trioxo-1,3-imidazolidinediyl-1,4-phenylenemethylene-1,4-phenylene)

RL: USES (Uses)  
(membranes, permselective, for liquid mixture separation)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L4 ANSWER 180 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:537787 HCAPLUS

DOCUMENT NUMBER: 115:137787

TITLE: Heat-resistant adhesives

INVENTOR(S): Sakota, Kazuyuki; Wakamatsu, Ken

PATENT ASSIGNEE(S): Tonen Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02269175	A	19901102	JP 1989-88142	19890410
PRIORITY APPLN. INFO.:			JP 1989-88142	19890410

AB The title adhesives, useful for metal bonding and flexible printed circuit board manufacture, comprise polyparabanic acids, epoxy resins, curing agents, and polar organic solvents. Thus, a mixture of polyparabanic acid (prepared from

an equimolar mixture of MDI and tolylene diisocyanate) 60, Epo Tohto YH 301 40, dicyandiamide 0.4, Aerosil R 202 5, and N-methylpyrrolidone 100 g was applied to a Kapton 100H film, dried at 140°, and pressed to a Cu foil at 25 kg/cm<sup>2</sup> and 200° for 15 min to form a laminate, which showed good flexibility, 180° peel strength 1.5 kg/cm, and no change when dipped in a soldering bath at 310° for 20 s while a control prepared using diaminodiphenyl ether-pyromellitic anhydride copolymer (polyamic acid) in place of the polyparabanic acid showed foaming between the polyimide film and the Cu foil, 180° peel strength 0.3 kg/cm, and blistering and discoloration when dipped in the

Updated Search

10501317

soldering bath and heating at 40 kg/cm<sup>2</sup> and 200° for 15 min and then at 300° for 15 min was required to produce comparable results in the laminate preparation

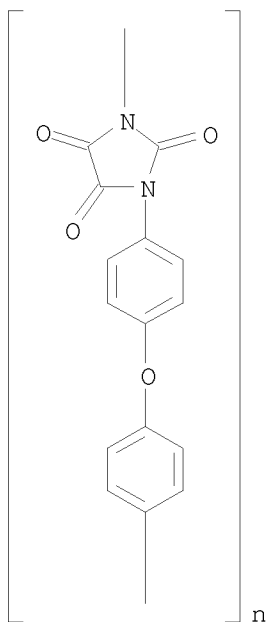
IT 31626-60-5

RL: USES (Uses)

(adhesive compns. containing epoxy resins and, heat-resistant, for metal bonding and flexible printed circuit board manufacture)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)

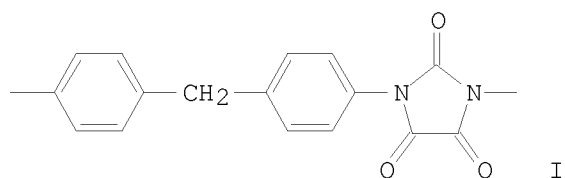


L4 ANSWER 181 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:482364 HCAPLUS  
DOCUMENT NUMBER: 115:82364  
TITLE: Thermal-transfer printing materials  
INVENTOR(S): Koshizuka, Kunihiro; Abe, Takao  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 03053990	A	19910307	JP 1989-190026	19890721
PRIORITY APPLN. INFO.: GI			JP 1989-190026	19890721

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10501317



AB The title materials with a heat-softening transfer layer is backcoated with parabanic acid polymers with repeating unit I. This antisticking layer not only prevents sticking efficiently but is heat-resistant and low-friction, and can be formed without curing process. This backcoat also prevents heat damage on substrate films. Thus, a PET film was coated with a transfer layer containing paraffin wax, carnauba wax, EVA, and carbon black, and was coated on the other side with a 0.3- $\mu\text{m}$ -thick antisticking layer containing 70% polymer with repeating units I and 30% silicone-modified acrylic resin. The use of this material showed min. increase of thickness when reeled up after use as printer ribbon, min. wrinkling when used as a broad sheet, and good transferability when used repeatedly.

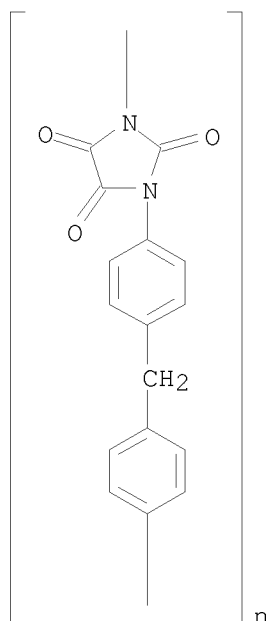
IT 37725-18-1

RL: USES (Uses)

(antisticking backcoat of thermal-transfer material)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

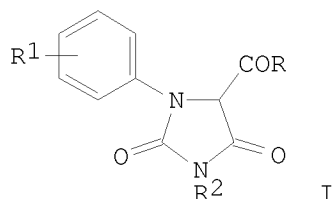


L4 ANSWER 182 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

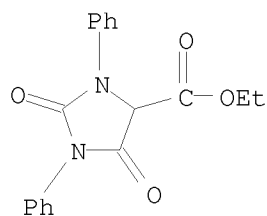
Updated Search

10501317

ACCESSION NUMBER: 1991:471476 HCAPLUS  
DOCUMENT NUMBER: 115:71476  
TITLE: 1,3-Disubstituted hydantoin-5-carbohydroxamic acids  
AUTHOR(S): Prelicz, Danuta; Sedzik-Hibner, Dorota; Arct, Barbara;  
Fedak, Ryszard  
CORPORATE SOURCE: Dep. Gen. Chem., Sch. Med., Wroclaw, 50345, Pol.  
SOURCE: Polish Journal of Chemistry (1990), 64(7-12), 587-94  
CODEN: PJCHDQ; ISSN: 0137-5083  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 115:71476  
GI



AB Aryl-5-carbethoxyhydantoins I (R = OEt, R1 = H, 3-, 4-Me, 3-, 4-Cl, R2 = Me, Ph, 3-ClC6H4, 4-ClC6H4) condensed with H2NOH.HCl to give I (R = NHOH) (II). II were converted to the O-carbamoyl derivs. I (R = NHO2CNHR3, R3 = Ph, 4-ClC6H4, 3-ClC6H4, 4-MeC6H4, Et, Bu, hexyl, 3-MeC6H4).  
IT 56598-97-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(condensation of, with hydroxylamine)  
RN 56598-97-1 HCAPLUS  
CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA INDEX NAME)



L4 ANSWER 183 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:430767 HCAPLUS  
DOCUMENT NUMBER: 115:30767  
TITLE: Poly(parabanic acid) tubes with good heat resistance and strength  
INVENTOR(S): Tomita, Isao; Minoshima, Wataru; Wakamatsu, Ken; Sakota, Kazuyuki  
PATENT ASSIGNEE(S): Tonen Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

Updated Search

10501317

CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

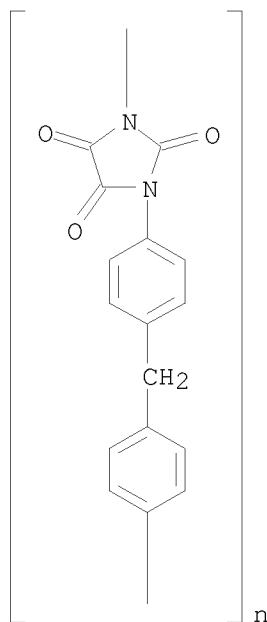
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02252734	A	19901011	JP 1989-73987	19890328
PRIORITY APPLN. INFO.:			JP 1989-73987	19890328

AB The title tubes, useful for endless belts for precision apparatus and tools, comprise polyparabanic acids of specified structure. Thus, 20 g copolymer containing 50 mol% poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-p-phenylenemethylene-p-phenylene] units and 50 mol% poly[(2,4,5-trioxo-1,3-imidazolidinediyl)(3,3'-dimethyl-4,4'-biphenylylene)] units in 80 g DMF was coated (125- $\mu$ m) on the inner wall of stainless steel cylinders and cured at 150-295° to give poly(parabanic acid) tubes (thickness 25  $\mu$ m) with tensile strength 18 and 13 kg/mm<sup>2</sup>, and elongation 40 and 60%, at 25 and 200°, resp.

IT 37725-18-1  
RL: USES (Uses)  
(tubes from polymers containing units of, heat-resistant, with high tensile strength)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

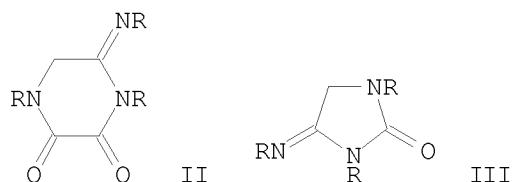


L4 ANSWER 184 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:408727 HCAPLUS  
DOCUMENT NUMBER: 115:8727

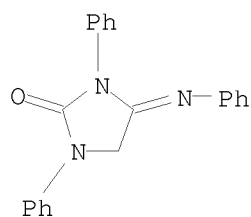
Updated Search

10501317

TITLE: Reaction of aryl-substituted glycinamidines with oxalic acid derivatives  
AUTHOR(S): Korshin, E. E.; Soboleva, G. I.; Levin, Ya. A.; Podval'nyi, E. A.; Efremov, Yu. Ya.  
CORPORATE SOURCE: Inst. Org. Fiz. Khim. im. Arbuzova, Kazan, USSR  
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1991), (1), 230-2  
CODEN: IASKA6; ISSN: 0002-3353  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 115:8727  
GI



AB Reaction of N1,N2-diaryl-N-arylglycinamidines I (R = Ph, p-MeC6M4) with (COC12)2 in CHCl3 containing Et3N gave 61.5 and 58% piperazinediones II, resp. Reaction of I with (CO2Et)2 in EtOH-xylene containing NaOEt gave 49 and 59% imidazolidinones III.  
IT 134318-69-7P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 134318-69-7 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl-4-(phenylimino)- (CA INDEX NAME)



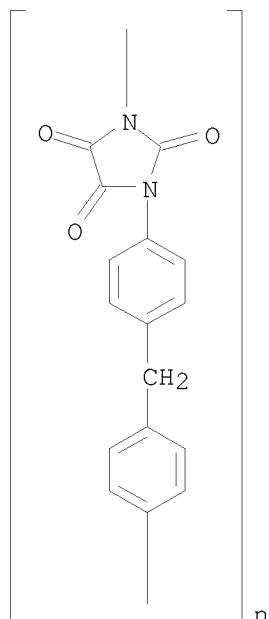
L4 ANSWER 185 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:166497 HCAPLUS  
DOCUMENT NUMBER: 114:166497  
TITLE: Heat-resistant electrically insulating thermosetting varnishes containing polyparabanic acid  
INVENTOR(S): Kato, Masayuki; Yoshizawa, Nobuyuki; Wakamatsu, Ken; Oita, Kazuyuki  
PATENT ASSIGNEE(S): Tonen Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent

Updated Search

10501317

LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02269783	A	19901105	JP 1989-90634	19890412
PRIORITY APPLN. INFO.:			JP 1989-90634	19890412
AB The title varnishes, giving coatings with good adhesion and flexibility, contain polyparabanic acids, epoxy resins, organic solvents, and optionally curing agents and/or flexibilizing agents. An Al sheet was coated with a varnish containing HCN-MDI copolymer 100, Epikote 807 43, dicyandiamide 1.7, and DMF 330 parts and heated 10 min at 150° and 10 min at 250° to form a coating with cross-cut adhesion 100/100 initially and 100/100 after 4 h in boiling water, Erichsen ≥6.0 mm, and 5% weight loss temperature 301°, vs. 100/100, 30/100, 3.0, and 285, resp., for a tung oil- and rosin-modified phenoplast coating.				
IT 37725-18-1 RL: TEM (Technical or engineered material use); USES (Uses) (coatings, containing epoxy resin, elec. insulating, heat-resistant)				
RN 37725-18-1 HCAPLUS				
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)				



L4 ANSWER 186 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:165967 HCAPLUS  
DOCUMENT NUMBER: 114:165967  
TITLE: Heat-resistant film-forming polyparabanic acid compositions  
INVENTOR(S): Hosoda, Jun; Yoshida, Norimasa; Watanabe, Ichigen;

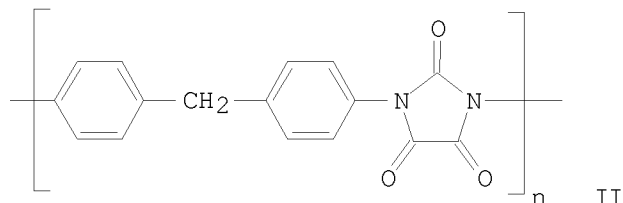
Updated Search



10501317

PATENT ASSIGNEE(S): Tomita, Isao  
Nitto Chemical Industry Co., Ltd., Japan; Tonen Sekiyu  
Kagaku K. K.  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02276862	A	19901113	JP 1989-97518	19890419
PRIORITY APPLN. INFO.: GI			JP 1989-97518	19890419



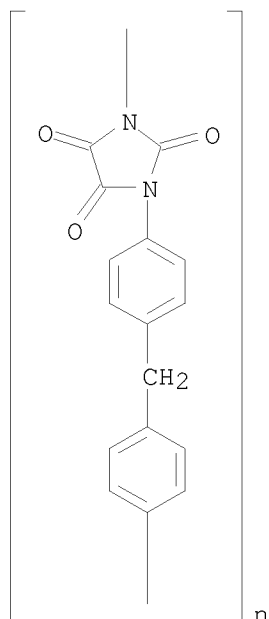
AB Nontoxic title compns. with good workability, forming level and pinhole-free coatings, contain ethylene carbonate and/or propylene carbonate (I). Thus, 15 parts polymer II and 85 parts I were mixed to give a clear solution with viscosity 90,000 cP, which was applied on a glass plate and stored at 25° and 70% humidity for 1 h to show no chalking and then heated at 150-250° for 15 min to form a pinhole-free level coating.

IT 37725-18-1  
RL: USES (Uses)  
(coatings, heat-resistant, pinhole-free, ethylene carbonate and/or propylene carbonate as solvents for)

RN 37725-18-1 HCAPLUS

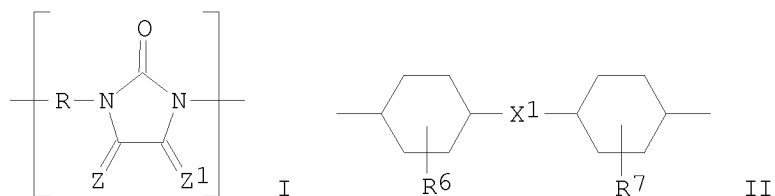
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 187 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1991:124662 HCAPLUS  
 DOCUMENT NUMBER: 114:124662  
 TITLE: Heat-resistant, thermally curable polyparabanic acid compositions  
 INVENTOR(S): Sakota, Kazuyuki; Wakamatsu, Ken  
 PATENT ASSIGNEE(S): Tonen Sekiyu Kagaku K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02252722	A	19901011	JP 1989-73988	19890328
PRIORITY APPLN. INFO.: GI			JP 1989-73988	19890328



Updated Search

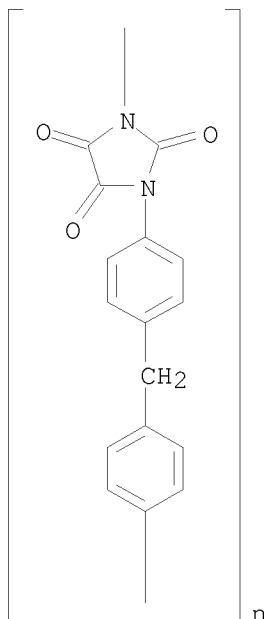
10501317

AB Comps. useful as adhesives and coatings contain I polymers (Z, Z1 = O, NH; and Z,Z1 are not NH simultaneously; R = 1,3-C6H3R2, 1,4-C6H3R3, 1,8-C10H6, 1,4-C6H3R4X-1,4-C6H3R5, II; R2-7 = H, Me; X,X1 = direct bond, CH2, O, S, SO2, CO, CMe2), and polyisocyanates. Thus, a coating manufactured by thermal curing of a composition containing I (R = 1,4-C6H4CH2-1,4-C6H4; Z,Z1 = O; inherent viscosity 0.6) 5, polyisocyanate (Mighty Luck) 5, TiO2 30, SiO2 5, leveling agent (Byk-354) 5, and deforming agent 1 g had pencil hardness 7 H, and Erichsen value >8 mm.

IT 37725-18-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, thermally curable, heat-resistant)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 188 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:81765 HCAPLUS

DOCUMENT NUMBER: 114:81765

TITLE: Some cyclization reactions with 1,3-diphenyl-5-imino-2-imidazolidinone-4-thione

AUTHOR(S): Mohamed, Y. A.; Ammar, Y. A.; El-Sharief, A. M. S.; Aly, M. M.

CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Nasr, Egypt

SOURCE: Journal of the Chinese Chemical Society (Taipei, Taiwan) (1990), 37(5), 511-16  
CODEN: JCCTAC; ISSN: 0009-4536

DOCUMENT TYPE: Journal

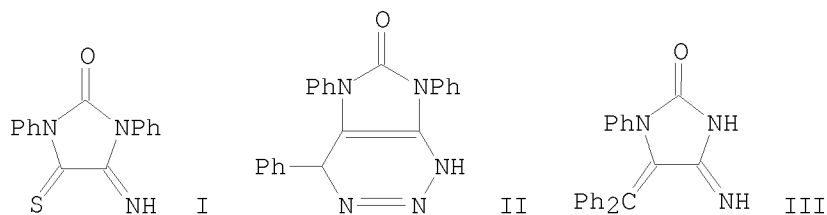
LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:81765

Updated Search

10501317

GI



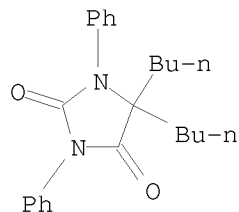
AB Various condensation and cyclocondensation reactions of the title compound (I) are reported. Thus, I was treated with PhCHN<sub>2</sub> in Et<sub>2</sub>O to give 68% the tetrahydrotriphenylimidazotriazinone II. Similar treatment of I with Ph<sub>2</sub>CN<sub>2</sub> gave the diphenylmethylene derivative III. Reactions of I with amines, hydrazines, isocyanates, BuMgBr, and HgCl<sub>2</sub> are also described.

IT 125912-09-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 125912-09-6 HCAPLUS

CN 2,4-Imidazolidinedione, 5,5-dibutyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 189 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:75036 HCAPLUS

DOCUMENT NUMBER: 114:75036

TITLE: 1,3-Disubstituted 2-thioxo-4,5-imidazolidinediones and 2,4,5-imidazolidinetriones and their anticonvulsant activity

AUTHOR(S): Zankowska-Jasinska, Wanda; Borowiec, Halina; Kolasa, Anna; Ostrowska, Katarzyna; Zaleska, Barbara; Przemyk, Barbara; Krzywosinski, Leszek; Bogdal, Maria; Kierylowicz, Hanna

CORPORATE SOURCE: Dep. Org. Chem., Jagiellonian Univ., Krakow, 30-060, Pol.

SOURCE: Polish Journal of Pharmacology and Pharmacy (1990), 42(1), 59-68

CODEN: PJPPAA; ISSN: 0301-0244

DOCUMENT TYPE: Journal

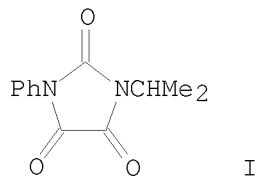
LANGUAGE: English

OTHER SOURCE(S): CASREACT 114:75036

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Updated Search

10501317



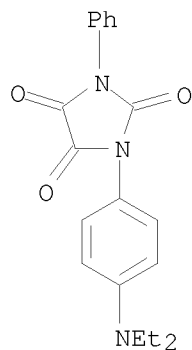
AB New unsym. 1,3-disubstituted derivs. of 2-thioxo-4,5-imidazolidinedione and 2,4,5-imidazolidinetrione were synthesized by condensation of the resp. thioureas and ureas with oxalyl chloride. They were screened for their central, mainly anticonvulsant activity, and only 1 compound (I) had antianxiety and antiepileptic properties.

IT 132033-99-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and anticonvulsant and anxiolytic activities of)

RN 132033-99-9 HCAPLUS

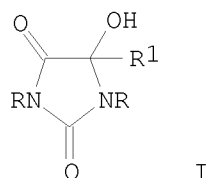
CN Imidazolidinetrione, [4-(diethylamino)phenyl]phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 190 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1991:23874 HCAPLUS  
DOCUMENT NUMBER: 114:23874  
TITLE: 5-[(Halo)fluoroalkyl]-5-hydroxyimidazolidine-2,4-diones from 2,4,5-imidazolidinetriones  
AUTHOR(S): Broicher, Volker; Geffken, Detlef  
CORPORATE SOURCE: Pharm. Inst., Univ. Bonn, Bonn, D-5300/1, Germany  
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1990), 323(11), 929-31  
CODEN: ARPMAS; ISSN: 0365-6233  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 114:23874  
GI

Updated Search

10501317

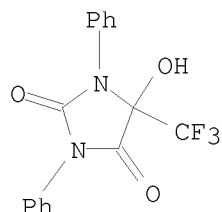


AB Title compds. I (R = Me, cyclohexyl, Ph; R1 = CF3, CF2Cl, CF2Br, CFC12, CF2CF3) were obtained in 25-58% yield by treating imidazolidinetriones with R1SiMe3 in the presence of Bu4NF and acid work-up.

IT 131271-17-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 131271-17-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-hydroxy-1,3-diphenyl-5-(trifluoromethyl)- (CA INDEX NAME)



L4 ANSWER 191 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:15969 HCAPLUS

DOCUMENT NUMBER: 114:15969

TITLE: Solid polymeric electrolyte

INVENTOR(S): Yamamoto, Takakazu

PATENT ASSIGNEE(S): Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

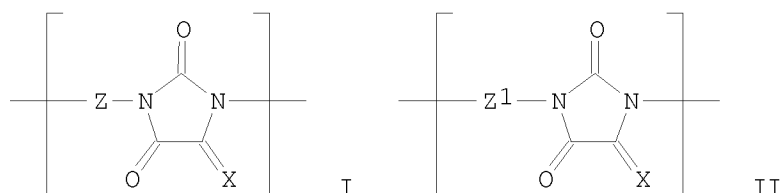
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 02086658	A	19900327	JP 1988-237937	19880921
JP 2833626	B2	19981209		
PRIORITY APPLN. INFO.:			JP 1988-237937	19880921
GI				

Updated Search

10501317



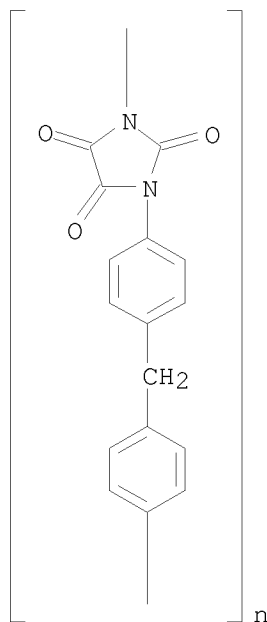
AB In a polymer solid electrolyte from a polymer containing an alkali metal salt or alkaline earth salt, the polymer comprises a polyparabanic acid or its imino precursor having a repeating unit of I, or its combination with II (Z, Z1 = divalent aromatic group; X = NH, O). The electrolyte is resistant to heat and cold, and has a superior mech. strength.

IT 37725-18-1

RL: PRP (Properties)  
(solid electrolytes containing)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 192 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:632159 HCAPLUS

DOCUMENT NUMBER: 113:232159

TITLE: Polyamide-polyether-polysulfone with parabanic structure

AUTHOR(S): Lungu, Catalin N.; Caraculacu, Georgeta; Caraculacu, Adrian A.

CORPORATE SOURCE: Inst. Chim. Macromol. "Petru Poni", Iasi, Rom.

Updated Search

10501317

SOURCE: Materiale Plastice (Bucharest, Romania) (1989), 26(4), 193-5

CODEN: MPLAAM; ISSN: 0025-5289

DOCUMENT TYPE: Journal

LANGUAGE: Romanian

AB Bis[4-(4'-aminophenoxy)phenyl] sulfone, prepared from reaction of the Na salt of p-aminophenol with bis(4-chlorophenyl) sulfone, was polymerized with 1,3-bis(p-chloroformylphenyl)parabanic acid to give a polyether-polyamide-polysulfone with a parabanic acid ring in the main chain. The polymer had electroinsulating properties and gave resistant, flexible, clear and colorless films having a mech. strength of 700-800 kg/cm<sup>2</sup>.

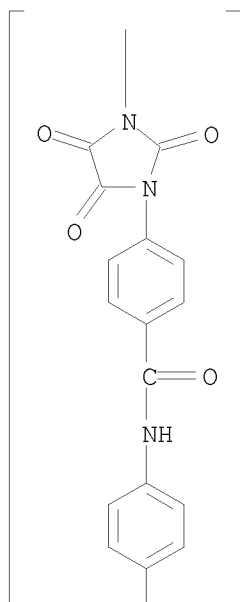
IT 130425-18-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and elec. insulating properties and film properties of)

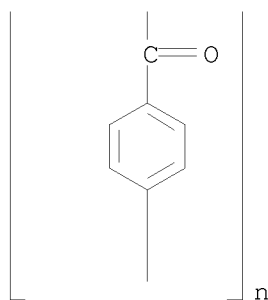
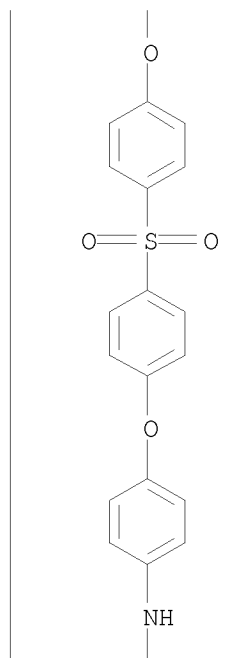
RN 130425-18-2 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenecarbonylimino-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenyleneiminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



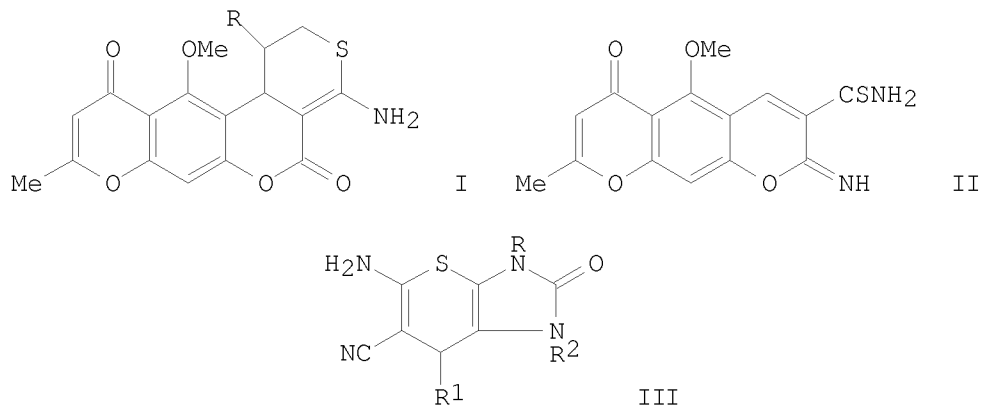




L4 ANSWER 193 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:515183 HCAPLUS  
 DOCUMENT NUMBER: 113:115183  
 TITLE: A novel synthesis of pyranobenzopyrano[3,4-c]thiopyran  
 and thiopyrano[2,3-d]imidazole derivatives  
 AUTHOR(S): Abdelaziz, Mahfouz A.  
 CORPORATE SOURCE: Fac. Sci., Cairo Univ., Giza, Egypt  
 SOURCE: Sulfur Letters (1990), 11(1-2), 1-11  
 CODEN: SULED2; ISSN: 0278-6117  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 113:115183

10501317

GI



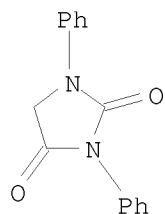
AB Pyranobenzopyrano[3,4-c]thiopyran derivs., e.g. I (R = CN, CO<sub>2</sub>Et), were prepared by cycloaddn. of 3-aminothiocarbonyl-2H-benzo[1,2-b:5,4-b']dipyran II with dienophiles. 3-Aryl-2-cyanothioacrylamides R<sup>1</sup>CH:C(CN)CSNH<sub>2</sub> (R<sup>1</sup> = Ph, 4-MeOC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>) reacted with hydantoin derivs. to give the thiopyrano[2,3-d]imidazolinones III (R<sub>2</sub>, R<sub>3</sub> = H, Ph).

IT 3157-03-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
(cyclocondensation of, with aryl(cyano)thioacrylamides,  
thiopyranoimidazolinones from)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 194 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:497511 HCAPLUS

DOCUMENT NUMBER: 113:97511

TITLE: Reaction of oxalic amidines with carbonic acid derived heterocumulenes to imidazolidine derivatives

AUTHOR(S): Beckert, R.; Gruner, M.

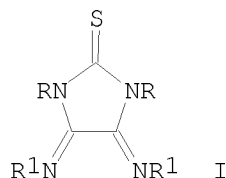
CORPORATE SOURCE: Sekt. Chem., Friedrich-Schiller-Univ., Jena, DDR-6900, Ger. Dem. Rep.

SOURCE: Journal fuer Praktische Chemie (Leipzig) (1990), 332(1), 65-82

Updated Search

10501317

DOCUMENT TYPE: CODEN: JPCEAO; ISSN: 0021-8383  
LANGUAGE: Journal  
OTHER SOURCE(S): German  
GI CASREACT 113:97511

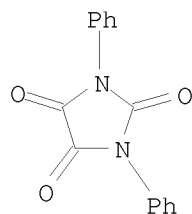


AB A useful synthetic route to nonsym. derivs. of imidazolidine I (R = substituted aryl, alkyl, R<sup>1</sup> = Ph, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>) (derivs. of parabanic acid) is demonstrated by the reaction of tetraarylated oxalic amidines R<sup>1</sup>N:C(NHR<sup>1</sup>)C(NHR<sup>1</sup>):NR<sup>1</sup> (II) with different alkyl- and aryl substituted isothiocyanates, isoselenocyanates, and carbodiimides. Acylisothiocyanates react differently leading to a mixture of three cycloacylation products. Silylated heterocumulenes react with II to give transsilylation product. Based on the <sup>13</sup>C NMR spectroscopic investigation of the reaction between II (R<sup>1</sup> = Ph) and MeNCS and PhNCS resp. a mechanism is proposed.

IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 195 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:460099 HCAPLUS

DOCUMENT NUMBER: 113:60099

TITLE: Olefinic aryl oxime derivatives of hydantoins

INVENTOR(S): Cesa, Mark C.; Rinz, James E.; Kopp, Teodora T.

PATENT ASSIGNEE(S): Standard Oil Co., USA

SOURCE: U.S., 13 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

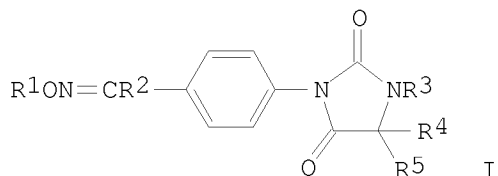
LANGUAGE: English

Updated Search

10501317

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4868061	A	19890919	US 1988-195934	19880519
PRIORITY APPLN. INFO.:			US 1988-195934	19880519
OTHER SOURCE(S):		CASREACT 113:60099; MARPAT 113:60099		
GI				



AB Title compds. I [R1-3 = H, C≤10 hydrocarbyl group containing no C.tplbond.C bond; R4-5 = H, (un)substituted C≤10 hydrocarbyl groups containing no C.tplbond.C bond, ≥1 R1-5 contains olefinic unsatn.) are prepared for use as UV absorbers for plastics or as monomers. Thus, reacting p-aminobenzaldehyde ethylene glycol acetal with glycine Me ester isocyanate, treating the intermediate with H2NOH.HCl (in the presence of tri-Me orthoformate in MeOH), a heating a MeOH solution of the resulting N-[4-hydroxyiminomethyl]phenyl)-N'-(1-methoxycarbonylmethyl)urea 2.5 h at reflux and pH .apprx.10.0 (adjusted by MeONa) gave 3-[4-hydroxyiminomethyl]phenyl]hydantoin (I). Treating the I with NaH followed by allyl bromide gave 3-[4-(allyloxyiminomethyl)phenyl]hydantoin, which was polymerized in PhMe 48 h at 80° in the presence of AIBN.

IT 128369-56-2P

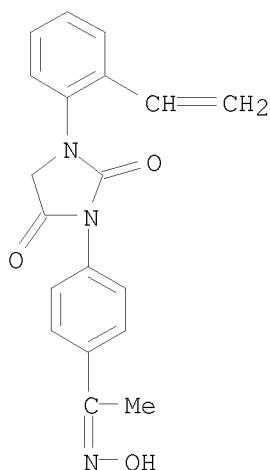
RL: PREP (Preparation)

(preparation of polymerizable, for UV absorbers for plastics)

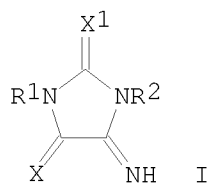
RN 128369-56-2 HCAPLUS

CN 2,4-Imidazolidinedione, 1-(2-ethenylphenyl)-3-[4-[1-(hydroxyimino)ethyl]phenyl]- (CA INDEX NAME)

10501317



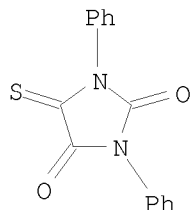
L4 ANSWER 196 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:440557 HCAPLUS  
DOCUMENT NUMBER: 113:40557  
TITLE: Heterocyclic ring-closure reactions. 10. The reactions of diphenyl- and phenyldiazomethane with iminothiones  
AUTHOR(S): El-Sharief, A. M. Sh.; Ketcham, Roger; Schaumann, Ernst  
CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Cairo, Egypt  
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1989), 46(1-2), 83-6  
CODEN: PSSLEC; ISSN: 1042-6507  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 113:40557  
GI



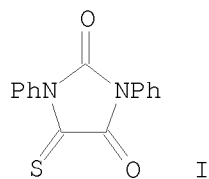
AB PhRCN2 (R = H, Ph) react with iminothioxoimidazolidinones and iminoimidazolidinedithiones I (X = S; X1 = O, S; R1 = R2 = Ph, Me; R1, R2 = Ph, Me) to give the diphenylmethylenes or the phenylmethylenes. I (X = PhHC, Ph2C).  
IT 71342-31-9  
RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with diphenyldiazomethane)  
RN 71342-31-9 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-thio- (CA INDEX NAME)

Updated Search

10501317



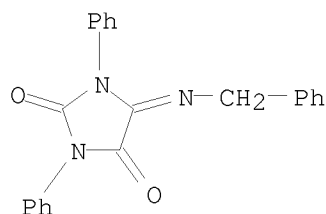
L4 ANSWER 197 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:232431 HCAPLUS  
DOCUMENT NUMBER: 112:232431  
TITLE: Synthesis and antimicrobial activity of some new  
2,5-imidazolidinediones  
AUTHOR(S): Mohamed, A. M.; El-Sharief, A. M. S.; Ammar, Y. A.;  
Aly, M. M.  
CORPORATE SOURCE: Fac. Sci., Al-Azhar Univ., Nasr City, Egypt  
SOURCE: Pharmazie (1989), 44(11), 765-7  
CODEN: PHARAT; ISSN: 0031-7144  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB 1,3-Diphenyl-4-thione-2,5-imidazolidinedione (I) was reacted with amino  
compds. and o-diamines to give 1,3-diphenyl-4-substituted  
imino-2,5-imidazolidinediones and 1,3-diphenyl-1H-imidazo[4,5-b]quinoxaline-  
2(3H)-ones, resp. Condensation of I with hydrazines afforded the  
corresponding hydrazone derivs. Six of these compds. had somewhat  
promising antimicrobial activity. Incorporation of the sulfonamido moiety  
with the imidazolidine nucleus generated inhibitory activity.  
IT 125911-79-7P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
study); PREP (Preparation)  
(preparation and antimicrobial activity of)  
RN 125911-79-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-[(phenylmethyl)imino]- (CA INDEX  
NAME)

Updated Search

10501317



L4 ANSWER 198 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:217985 HCAPLUS  
DOCUMENT NUMBER: 112:217985  
TITLE: Study of heat-resistant polymers for electronics applications  
AUTHOR(S): Boiteux, G.; Oraison, J. M.; Seytre, G.; Vallet, G.; Davenas, J.; Mariaggi, P.; Senneron, M.; Sillion, B.  
CORPORATE SOURCE: Lab. Etud. Mater. Plast. Biomater., Univ. "Claude Bernard" Lyon I, Villeurbanne, 69622, Fr.  
SOURCE: Angewandte Makromolekulare Chemie (1989), 172, 207-32  
CODEN: ANMCBO; ISSN: 0003-3146  
DOCUMENT TYPE: Journal  
LANGUAGE: French  
AB Films of 1,4-bis(phenylglyoxyloyl)benzene-3,3',4,4'-tetraaminobiphenyl copolymer (I), MDI-[MeOCOCMe2NH-p-C6H4]2CH2 copolymer (II), and 3,3',4,4'-benzophenonetetracarboxylic dianhydride-9,9-bis(4'-aminophenyl)fluorene copolymer (III) were prepared and characterized. The d. of the films and their moisture uptake at 65% relative humidity increased in the order I < II < III. I and III had elec. resistivities .apprx.1 order of magnitude greater than that of II. Induction of surface elec. conductivity of Kapton polyimide by ion beam implantation is described.  
IT 36247-75-3P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and characterization of heat-resistant)  
RN 36247-75-3 HCAPLUS  
CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

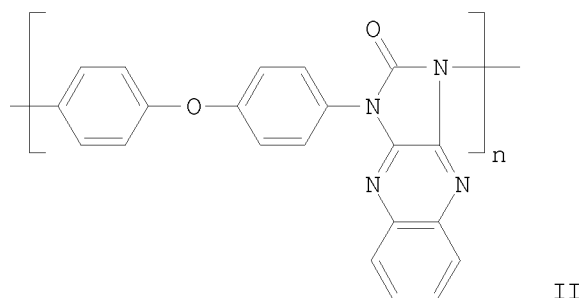
L4 ANSWER 199 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:179027 HCAPLUS  
DOCUMENT NUMBER: 112:179027  
TITLE: Preparation of N,N'-disubstituted-2-oxoimidazoquinoxalines and their polymers  
INVENTOR(S): Kitano, Hisao; Tanimoto, Fumio; Yamada, Yoshitoshi  
PATENT ASSIGNEE(S): Institute for Production and Development Science,

Updated Search

10501317

SOURCE: Japan  
Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01258676	A	19891016	JP 1988-86027	19880406
PRIORITY APPLN. INFO.: GI			JP 1988-86027	19880406

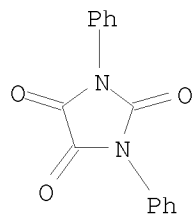


AB Title compds. are prepared by condensing N,N'-disubstituted parabanic acids containing an aromatic group at N and/or N' with o-phenylenediamines at 80-280°. Polymers containing N,N'-disubstituted parabanic acid units are likewise condensed with o-phenylenediamines to give title polymers. Thus, heating 26.62 g 1,3-diphenylparabanic acid and 10.81 g o-phenylenediamine (I) in 1,3-diisopropylbenzene under N with azeotropic distillation of H<sub>2</sub>O gave 24 g 1,3-diphenyl-2-oxoimidazoquinoline. Heating a Ph<sub>2</sub>O solution of 2.7 g poly[(N-p-phenoxyphenylene)parabanic acid] with 1.1 g I at 250° gave a polymer II with softening point 290° and decomposition temperature 390° in 82% yield.

IT 6488-59-1, 1,3-Diphenylparabanic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(condensation of, with phenylenediamine)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



Updated Search



10501317

L4 ANSWER 200 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:159055 HCAPLUS

DOCUMENT NUMBER: 112:159055

TITLE: Copolymers with parabanic structure

AUTHOR(S): Scortanu, Elena; Caraculacu, Georgeta; Caraculacu, Adrian A.

CORPORATE SOURCE: Inst. Chim. Macromol. "Petru Poni", Iasi, Rom.

SOURCE: Materiale Plastice (Bucharest, Romania) (1989), 26(2), 74-8

CODEN: MPLAAM; ISSN: 0025-5289

DOCUMENT TYPE: Journal

LANGUAGE: Romanian

AB A number of polyureas, polyamides, polyimides, and polyimide-polyamides containing parabanic acid rings in the main chain were prepared by reaction of 1,3-bis(3-isocyanato-4-tolyl)parabanic acid with various other heterocycle-containing monomers, in solns. of aprotic dipolar solvents, with or without catalysts. The polymers had high thermal stability, generally decomposing before melting. Elemental anal. of the polymers confirmed the proposed structures.

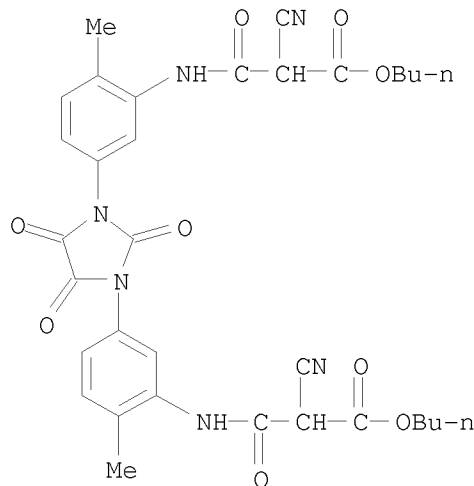
IT 126365-08-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and polymerization of, with bis(isocyanatotolyl)parabanic acid)

RN 126365-08-0 HCAPLUS

CN Propanoic acid, 3,3'-[(2,4,5-trioxo-1,3-imidazolidinediyl)bis[(6-methyl-3,1-phenylene)imino]]bis[2-cyano-3-oxo-, dibutyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 201 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:120438 HCAPLUS

DOCUMENT NUMBER: 112:120438

TITLE: Manufacture of diene rubbers and their compositions

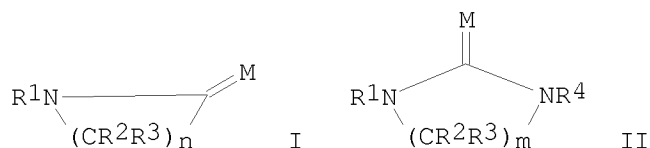
INVENTOR(S): Kawanaka, Takafumi; Watanabe, Hiroshi; Noguchi, Kokichi; Akita, Shuichi

Updated Search

10501317

PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01249812	A	19891005	JP 1988-79003	19880331
JP 2652795	B2	19970910		
US 5001196	A	19910319	US 1989-330025	19890329
PRIORITY APPLN. INFO.: GI			JP 1988-79003	A 19880331

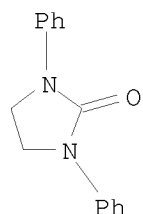


AB Diene rubbers with excellent impact resilience and durability, useful for tire treads, are prepared by the reaction of alkali metal- and/or alkaline earth metal-containing diene polymer rubbers with (thio)lactams I or cyclic (thio)ureas II (M = O, S; R1, R4 = substituent without H on  $\alpha$ -C; R2-3 = H, hydrocarbyl; n  $\geq$  2; m = 2-4). Polymerizing 150 g butadiene in diglyme-benzene with BuLi at 40° for 1 h, stirring with 1.0 mmol N-phenyl-2-pyrrolidone (III) for 5 min, and pouring the mixture into a solution of 2,6-di-tert-butyl-p-cresol in MeOH gave a modified rubber showing Mooney viscosity 42.4, 41.7, and 42.2 after 0, 2, and 6 wk at 40°, resp., vs. 42.0, 55.0, and 63.2, resp., with N-methylpyrrolidone instead of III. A composition of the rubber 100, HAF carbon black 50, aromatic oil 5, ZnO 3, stearic acid 2, S 1, and N-oxydiethylene-2-benzothiazolesulfenamide 2 parts was press vulcanized at 160° for 25 min to give a vulcanizate with impact resilience 67% and good wet skid resistance.

IT 728-24-5D, reaction products with living polybutadiene  
 RL: DEV (Device component use); USES (Uses)  
 (tire treads containing, with impact resilience)

RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



Updated Search

10501317

L4 ANSWER 202 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:57344 HCAPLUS

DOCUMENT NUMBER: 112:57344

TITLE: Electrical properties of poly(parabanic acid derivative) films

AUTHOR(S): Zou, Dechun; Tokito, Shizuo; Tsutsui, Tetsuo; Saito, Shogo

CORPORATE SOURCE: Grad. Sch., Kyushu Univ., Fukuoka, Japan

SOURCE: Sogo Rikogaku Kenkyuka Hokoku (Kyushu Daigaku Daigakuin) (1988), 10(2), 155-60

CODEN: SRKHEK; ISSN: 0388-1717

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB An investigation of the elec. properties of two kinds of a poly(parabanic acid derivative) (PPA-M and PPA-TM) film was carried out. The d.c. conductions of both films at 290-490K were examined Both polymers had a very high elec. resistance,  $>10^{19} \Omega\text{-cm}$  at room temperature The charge carriers in the polymers were considered to be impurity ions. The dielec. behaviors at frequencies of 20-105 Hz at temps. 290-520K were determined Both polymers showed very small dielec. losses, less than 0.04 at temps.  $< 520\text{K}$  due to their rigid structure. The dielec. consts. of the polymers were about 3.0 and changed a little with the changes of temperature and frequency. Both polymers exhibited a relatively small dielec. relaxation which can be ascribed to the movement of the dipole moment on a parabanic acid residue because of local segmental oscillational motions of the rigid skeletal chains. The dielec. absorption peak of PPA-M appeared at a lower temperature

or

higher frequency region compared with that of PPA-TM.

IT 37725-18-1

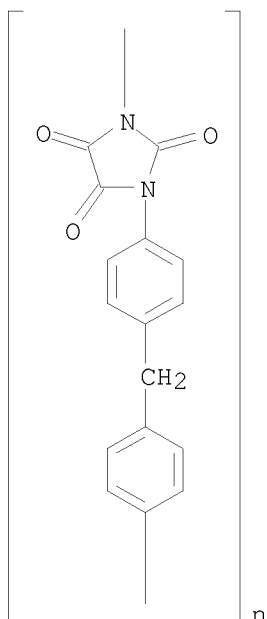
RL: USES (Uses)

(films, elec. properties of)

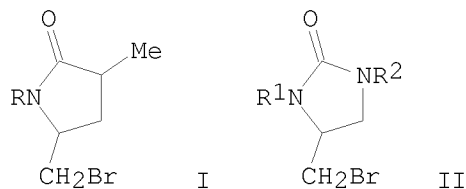
RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 203 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:55698 HCAPLUS  
DOCUMENT NUMBER: 112:55698  
TITLE: Halocyclizations: the cyclization of heterocyclic  
olefinic amides and ureas  
AUTHOR(S): Balko, T. W.; Brinkmeyer, R. S.; Terando, N. H.  
CORPORATE SOURCE: Lilly Res. Lab., Eli Lilly and Co., Greenfield, IN,  
46140, USA  
SOURCE: Tetrahedron Letters (1989), 30(16), 2045-8  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 112:55698  
GI



AB The halocyclization of N-heterocyclic pentenamides RNHCOCHMeCH<sub>2</sub>CH:CH<sub>2</sub> (R = 3-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, 3-MeOC<sub>6</sub>H<sub>4</sub>, 5-tert-butylisoxazol-3-yl, 5-tert-butyl-1,3,4-thiadiazol-2-yl, 4-tert-butylthiazol-2-yl) and allyl ureas R<sub>1</sub>NHCONR<sub>2</sub>CH<sub>2</sub>CH:CH<sub>2</sub> (R<sub>1</sub> = 3-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, EtO<sub>2</sub>CCH<sub>2</sub>, R<sub>2</sub> = Me, Ph; R<sub>1</sub> = 3-, 4-ClC<sub>6</sub>H<sub>4</sub>, 4-MeC<sub>6</sub>H<sub>4</sub>, 2,6-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 2-ClC<sub>6</sub>H<sub>4</sub>CO, 5-tert-butylisoxazol-3-yl, R<sub>2</sub>

Updated Search

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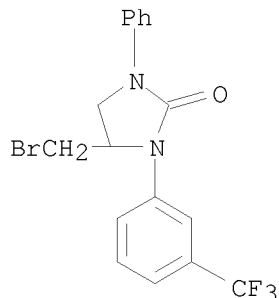
= Me; R1 = EtO2CCH2, R2 = H) with NBS yields the pyrrolidinones I and imidazolidinones II resp. The thiazolyl pentenamide also yields the 6-membered ring lactam.

IT 124466-41-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 124466-41-7 HCAPLUS

CN 2-Imidazolidinone, 4-(bromomethyl)-1-phenyl-3-[3-(trifluoromethyl)phenyl]-  
(CA INDEX NAME)



L4 ANSWER 204 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:22471 HCAPLUS

DOCUMENT NUMBER: 112:22471

TITLE: Thioxanthene dioxide derivative polyhydantoins

INVENTOR(S): Heywang, Gerhard; Jonas, Friedrich; Merten, Rudolf;  
Schmidtberg, Werner

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

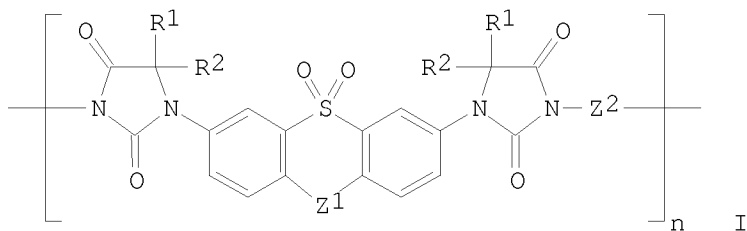
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 310915	A1	19890412	EP 1988-115875	19880927
R: DE, FR, GB, IT				
DE 3734040	A1	19890420	DE 1987-3734040	19871008
US 4849492	A	19890718	US 1988-251624	19880929
JP 01123829	A	19890516	JP 1988-252183	19881007
PRIORITY APPLN. INFO.:			DE 1987-3734040	A 19871008

GI

10501317



AB The polyhydantoin I [R2, R3 = H, alkyl, or (together) (CH2)4 or (CH2)5; Z1 = CH2, CO, O, SO2, alkylidene; Z2 = divalent aliphatic, aromatic, or arylaliph. group] are heat-resistant and useful as coatings. Refluxing 3,6-thioxanthenediamine S,S-dioxide 104.12, acetone cyanohydrin 136, and MeOH 400 parts for 24 h gave 88.2 g 3,6-bis[( $\alpha$ -cyanoisopropyl)amino]thioxanthene S,S-dioxide, H2SO4-catalyzed esterification of 139 parts of which gave 88 parts of the corresponding dicarboxylic acid di-Me ester (II). Heating II 23.03, MDI 12.5, triethylenediamine 0.05, cresol 75.6, and PhMe 10 parts at 210° for 8 h and diluting with an equal amount of cresol gave a solution (viscosity 7.6 Pa-s at 25°) of polyhydantoin which was coated on steel and baked at 300° to give a smooth, light-colored, elastic film.

IT 123697-78-9

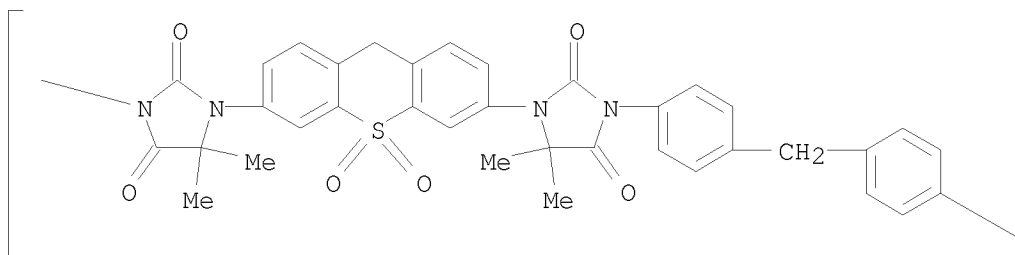
RL: USES (Uses)

(heat-resistant, for coatings and films, manufacture of)

RN 123697-78-9 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)(10,10-dioxido-9H-thioxanthene-3,6-diyl)(4,4-dimethyl-2,5-dioxo-3,1-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

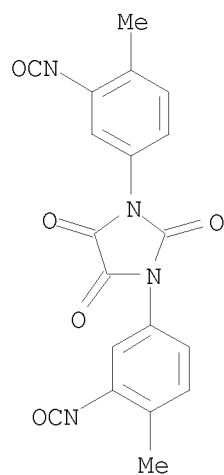
PAGE 1-A



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L4 ANSWER 205 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1989:595495 HCAPLUS  
DOCUMENT NUMBER: 111:195495  
TITLE: Parabanic polyquinazolinedione  
AUTHOR(S): Caraculacu, Georgeta; Scortanu, Elena; Agherghinei, Ioan; Caraculacu, Adrian A.  
CORPORATE SOURCE: Inst. chim. Macromol. "Petru Poni", Iasi, Rom.  
SOURCE: Materiale Plastice (Bucharest, Romania) (1989), 26(1), 18-20  
CODEN: MPLAAM; ISSN: 0025-5289  
DOCUMENT TYPE: Journal  
LANGUAGE: Romanian  
AB The synthesis of heat-resistant parabanic polyquinazolinedione from 4,4'-diamino-3,3'-biphenyldicarboxylic acid (I) or I.HCl and 1,3-bis(3-isocyanato-4-tolyl)parabanic acid in N-methylpyrrolidone or H3PO4 is described. The polymer was characterized by IR spectroscopy, TGA (polyurea dehydration at 160-180°) and viscosity.  
IT 123415-81-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and thermal cyclization of)  
RN 123415-81-6 HCAPLUS  
CN [1,1'-Biphenyl]-3,3'-dicarboxylic acid, 4,4'-diamino-, polymer with bis(3-isocyanato-4-methylphenyl)imidazolidinetriene (9CI) (CA INDEX NAME)  
CM 1  
CRN 54518-24-0  
CMF C19 H12 N4 O5

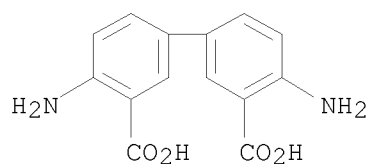
10501317



CM 2

CRN 2130-56-5

CMF C14 H12 N2 O4



L4 ANSWER 206 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:555416 HCAPLUS

DOCUMENT NUMBER: 111:155416

TITLE: Parabanic acid polymer compositions for smooth films with low friction

INVENTOR(S): Sato, Yoshikazu; Kawashima, Riichiro; Echigo, Junichi; Kadokura, Takao

PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

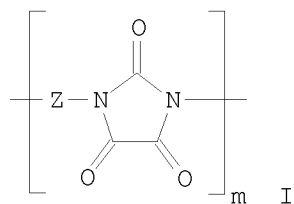
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 01040558	A	19890210	JP 1987-196637	19870806
PRIORITY APPLN. INFO.: GI			JP 1987-196637	19870806

Updated Search



10501317

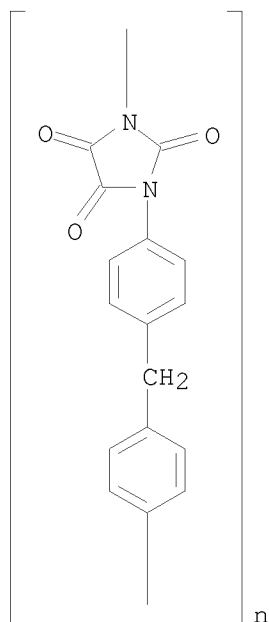


AB Title compns. contain 100 parts polymers I (R = divalent organic group; m  $\geq 1$ ) with intrinsic viscosity  $[\eta]$  0.2-10 dL/g and 0.01-10 parts aromatic polysulfones soluble in organic solvents. A DMF solution of I [Z = CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>-p)<sub>2</sub>,  $[\eta]$  = 1.05 dL/g] was mixed with a DMF solution of 5 phr polyether-polysulfone, cast on glass, dried, and heated at 120-280° for 25 min to give a 50- $\mu$ m film with kinetic friction coefficient 0.5 and surface roughness 0.09  $\mu$ m, vs. 0.2 and >1  $\mu$ m, resp., with 15.0 phr polysulfone.

IT 37725-18-1  
 RL: USES (Uses)  
 (blends with aromatic polysulfones, for antifriction films)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 207 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:498309 HCAPLUS

DOCUMENT NUMBER: 111:98309

TITLE: Electrically conducting, thermally stable, and

Updated Search

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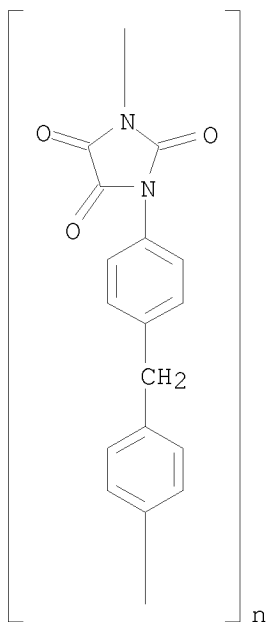
mechanically strong copper sulfide-poly(parabanic acid) composite films and their shielding effect of electromagnetic wave

AUTHOR(S): Yamamoto, T.; Kubota, E.  
CORPORATE SOURCE: Res. Lab. Resour. Util., Tokyo Inst. Technol., Yokohama, 227, Japan  
SOURCE: Colloid and Polymer Science (1989), 267(6), 546-8  
CODEN: CPMSB6; ISSN: 0303-402X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Poly(parabanic acid)-CuS composite film (CuS weight% = 20-50%) prepared by using organosols of CuS showed elec. conductivity of 0.1-70 S/cm, high thermal stability up to 250°, high mech. strength (breaking stress = 7.0-12 + 107 Pa), and good shielding of electromagnetic waves.

IT 37725-18-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(copper sulfide composites, preparation of, by organosol technique, elec. conductivity and electromagnetic wave shielding in relation to)

RN 37725-18-1 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 208 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1989:174316 HCAPLUS  
DOCUMENT NUMBER: 110:174316  
TITLE: Electrical studies of heat-resistant polymers  
AUTHOR(S): Oraison, J. M.; Boiteux, G.; Seytre, G.; Rabilloud, M.; Senneron, M.; Sillion, B.  
CORPORATE SOURCE: Lab. Etud. Mater. Plast. Biomater., Univ. "Claude Bernard", Villeurbanne, 69622, Fr.

Updated Search

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SOURCE: Makromolekulare Chemie, Macromolecular Symposia  
(1989), 24(Eur. Symp. Polym. Mater., 1987, Pt. 3),  
341-7  
CODEN: MCMSES; ISSN: 0258-0322

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 3,3',4,4'-Biphenyltetraamine-4-phenylglyoxyloylbenzil copolymer,  
2,2'-dimethyl-2,2'-[methylenebis(1,4-phenyleneimino)] propionate-4,4'-  
methylenediphenylisocyanate copolymer, and 3,3'4,4'-  
benzophenonetetracarboxylic anhydride copolymer were prepared to obtain  
heat-resistant dielec. films. The elimination of the solvent of synthesis  
and thermal treatment were necessary for the reproducibility of the  
dielec. characteristics.

IT 36247-75-3P  
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic  
preparation); PREP (Preparation); PROC (Process)  
(heat-resistant, preparation and dielec. properties of)

RN 36247-75-3 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-  
1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-  
phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 209 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:150323 HCAPLUS

DOCUMENT NUMBER: 110:150323

TITLE: An artificial intelligence approach to the study of  
the structural moieties relevant to drug-receptor  
interactions in aldose reductase inhibitors

AUTHOR(S): Klopman, Gilles; Buyukbingol, Erdem

CORPORATE SOURCE: Dep. Chem., Case West. Reserve Univ., Cleveland, OH,  
44106, USA

SOURCE: Molecular Pharmacology (1988), 34(6), 852-62  
CODEN: MOPMA3; ISSN: 0026-895X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The computer-automated structure evaluation program has been used to study  
482 compds. relevant to the inhibition of aldose reductase. Major  
activating/inactivating fragments were generated automatically. The  
significance of these mol. descriptors with respect to the activity of the  
compds. is discussed.

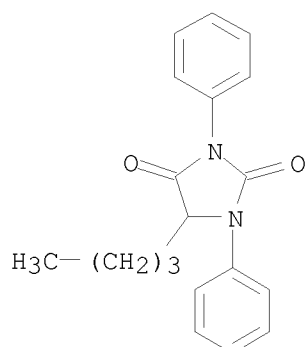
IT 26558-83-8  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological  
process); BSU (Biological study, unclassified); PRP (Properties); BIOL  
(Biological study); PROC (Process)  
(aldose reductase inhibition by, structure effect on, computer  
evaluation of)

RN 26558-83-8 HCAPLUS

Updated Search

10501317

CN 2,4-Imidazolidinedione, 5-butyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 210 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:95901 HCAPLUS

DOCUMENT NUMBER: 110:95901

TITLE: Aromatic polyamide with parabanic structure

AUTHOR(S): Caraculacu, A. A.; Lungu, N. C.; Caraculacu, G.

CORPORATE SOURCE: "P. Poni" Inst. Macromol. Chem., Iasi, 6600, Rom.

SOURCE: European Polymer Journal (1988), 24(12), 1207-9

CODEN: EUPJAG; ISSN: 0014-3057

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 1,3-Bis(p-chloroformylphenyl)parabanic acid (I) was obtained in a 2-step process starting with the reaction between aqueous p-aminobenzoic acid and COCl<sub>2</sub>. The urea acid product was treated with ClCOCOC1 to obtain I. Aromatic polyamides with parabanic structure were synthesized from I and aromatic diamines in AcNMe<sub>2</sub>. From polymer solns. flexible films could be obtained with good elec. insulating properties and good thermal stabilities.

IT 119080-03-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and dielec. properties of)

RN 119080-03-4 HCAPLUS

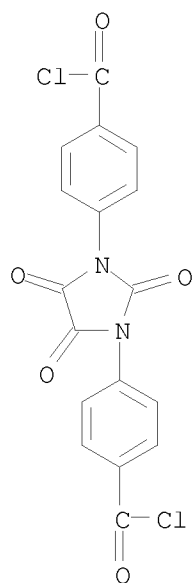
CN Benzoyl chloride, 4,4'-(2,4,5-trioxo-1,3-imidazolidinediyl)bis-, polymer with 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 119080-02-3

CMF C17 H8 Cl2 N2 O5

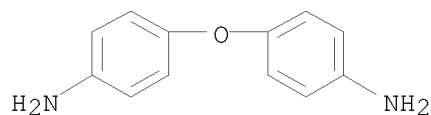
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CM 2

CRN 101-80-4

CMF C12 H12 N2 O



L4 ANSWER 211 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1989:59019 HCAPLUS  
DOCUMENT NUMBER: 110:59019  
TITLE: Polyamide compositions for reaction injection moldings  
INVENTOR(S): Isekawa, Hiroshi; Murata, Yasuhiro  
PATENT ASSIGNEE(S): Mitsubishi Monsanto Chemical Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63170011	A	19880713	JP 1987-1208	19870107

PRIORITY APPLN. INFO.: JP 1987-1208 19870107

AB Compsns. giving moldings with high mech. strength, low dimensional deformation after absorbing moisture, and good appearance, useful in preparing instrument panels, apparatus housings, pallets, sheets, etc., are prepared

Updated Search

from  $\omega$ -lactam, polymerization catalysts, and molten  $\omega$ -lactam-soluble mixts. of polyamides, polyoxyphenylenes, and 2-imidazolidone derivs. by injection molding at a temperature above the m.p. of the  $\omega$ -lactam. A mixture of 30 parts 450:50  $\epsilon$ -caprolactam (I)-bromomagnesium caprolactam mixture was mixed with 90 parts of a mixture of I 122, isophthaloylbiscaprolactam 2.6, and 30:30:30 (50:17:33 4,4'-diaminocyclohexylmethane-isophthalic acid-terephthalic acid copolymer)-poly(2,6-dimethyl-1,4-oxyphenylene)-N,N'-dimethyl-2-imidazolidone mixture (II) 35 parts, heated to 135°, and molded 3 min at 135° to give a 2.5-mm plate having dimensional deformation (after 48 h at 50° and 95% relative humidity) 0.45%, flexural modulus 25,600 kg/cm<sup>2</sup>, and good appearance, vs. 1.10, 19,800, and good, resp., for a plate without II.

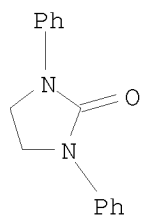
IT 728-24-5

RL: USES (Uses)

(blends of polyoxyphenylenes and polyamides containing, for reaction injection moldings)

RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 212 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:590282 HCAPLUS

DOCUMENT NUMBER: 109:190282

TITLE: Photochemical Wolff-rearrangement of cyclic 2-diazo-1,3-dicarbonyl compounds

AUTHOR(S): Ulbricht, Mathias; Thurner, Joern Uwe; Siegmund, Manfred; Tomaschewski, Georg

CORPORATE SOURCE: Sekt. Chem., Humboldt-Univ. Berlin, Berlin, DDR-1040, Ger. Dem. Rep.

SOURCE: Zeitschrift fuer Chemie (1988), 28(3), 102-3

CODEN: ZECEAL; ISSN: 0044-2402

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 109:190282

GI For diagram(s), see printed CA Issue.

AB The photochem. Wolff-rearrangement of title compds. I (X = CH<sub>2</sub>CHPhCH<sub>2</sub>, CH<sub>2</sub>CMe<sub>2</sub>CH<sub>2</sub>, CHPhCHPhCH<sub>2</sub>, OMe<sub>2</sub>, NRCONR; R = Me, Ph, cyclohexyl) at 120K-200nm gave ketoketenes II which on warming above 180K gave cyclopentanone and ketene dimers in some cases. Photolysis of I (X = NPhCONPh) in alc. at 300K-300nm gave valance isomer diazirine III. Photolysis of I (X = CH<sub>2</sub>CHPhCH<sub>2</sub>) in EtOH at 300K-200nm gave Et 4-phenylcyclopentan-2-onecarboxylate whereas photolysis of I (X = NPhCONPh) in MeOH at 300K-200nm gave Me 1,3-diphenylhydantoincarboxylate.

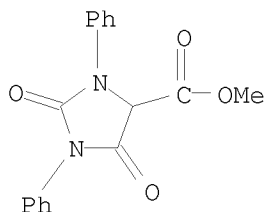
IT 117135-78-1P

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RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 117135-78-1 HCAPLUS

CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, methyl ester (CA  
INDEX NAME)



L4 ANSWER 213 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:511791 HCAPLUS

DOCUMENT NUMBER: 109:111791

TITLE: Manufacture of porous hollow composite membranes

INVENTOR(S): Yamada, Katsuya; Okita, Koichi

PATENT ASSIGNEE(S): Sumitomo Electric Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

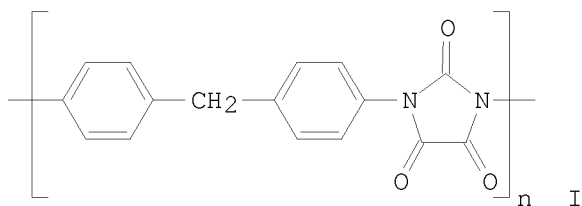
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 63091123	A	19880421	JP 1986-236810	19861003
PRIORITY APPLN. INFO.: GI			JP 1986-236810	19861003

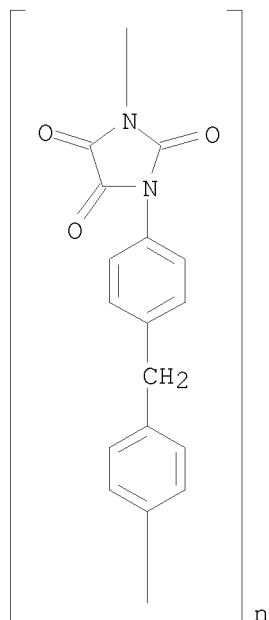


AB The title membranes are prepared by laminating plasma-polymerized films on  $\geq 1$  side of a porous hollow support composed of a poly(parabanic acid) I or its derivative. Thus, a hollow fiber membrane (porosity 52%, tensile strength 203 kg/cm<sup>2</sup>, elongation 30%) prepared from a solution of I in DMF was coated by plasma polymerization of methyltrivinylsilane to give a membrane having H permeability  $2.8 \times 10^{-5}$  and CO permeability  $8.9 \times 10^{-8}$  cm<sup>3</sup>/cm<sup>2</sup>-s-cm Hg and good chemical resistance and strength during heating.

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IT 37725-18-1  
RL: USES (Uses)  
(membranes, hollow-fiber, laminated, for gas separation)  
RN 37725-18-1 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



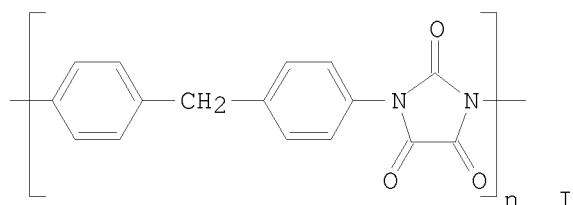
L4 ANSWER 214 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1988:511790 HCAPLUS  
DOCUMENT NUMBER: 109:111790  
TITLE: Manufacture of porous hollow composite membranes  
INVENTOR(S): Yamada, Katsuya; Okita, Koichi  
PATENT ASSIGNEE(S): Sumitomo Electric Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63091124	A	19880421	JP 1986-236811	19861003
PRIORITY APPLN. INFO.: GI			JP 1986-236811	19861003

Updated Search



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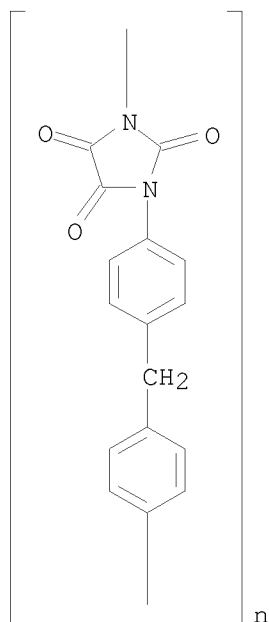


AB The title membranes are prepared from a poly(parabanic acid) I or its derivative and contain pores having average diameter  $\leq 10 \mu\text{m}$  and the shape of a sponge, void, or finger. Thus, a solution of 21 parts I in 79 parts DMF was heated to  $50^\circ$  and extruded into  $\text{H}_2\text{O}$  at  $26^\circ$  to give hollow fibers, heated at  $50^\circ$  to remove solvent, and dried 15 min at  $120^\circ$  to give a membrane having finger-shaped pores, porosity 68%, tenacity 167 kg/cm<sup>2</sup>, elongation 46%, H permeability  $1.3 \times 10^{-4}$  cm<sup>3</sup>/cm<sup>2</sup>-s-cm Hg, and  $\text{H}_2\text{O}$  permeability 1.4 L/m<sup>2</sup>-h-atmospheric

IT 37725-18-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(membranes, porous, permselective)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



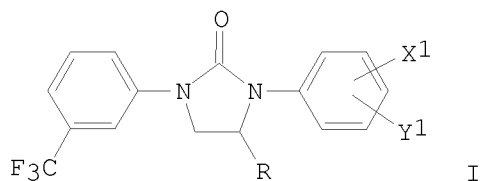
L4 ANSWER 215 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1988:510435 HCAPLUS  
DOCUMENT NUMBER: 109:110435  
TITLE: Preparation of herbicidal N,N'-diphenylimidazolidine-2-

Updated Search

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ones and methods of use  
INVENTOR(S): Teach, Eugene G.  
PATENT ASSIGNEE(S): Stauffer Chemical Co., USA  
SOURCE: U.S., 8 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4744813	A	19880517	US 1986-933834	19861124
PRIORITY APPLN. INFO.:			US 1986-933834	19861124
OTHER SOURCE(S):	CASREACT 109:110435; MARPAT 109:110435			
GI				



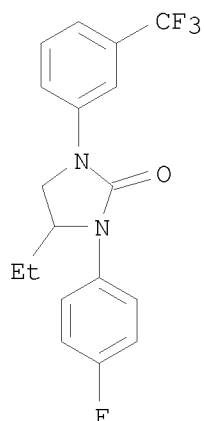
AB Title compds. I (X', Y' = F<sub>3</sub>C, Br, Cl, F, H, NC, C<sub>1</sub>-4 alkyl, -thioalkyl, -halothioalkyl, -alkoxy, -sulfonylalkyl; R = H, C<sub>1</sub>-4 alkyl) were prepared 3-(CF<sub>3</sub>)C<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>COCH<sub>2</sub>Me and 4-FC<sub>6</sub>H<sub>4</sub>NCO were heated at 100° for 1 h to give the imidazolinone which was combined with EtOH and Pd/C to give I (X' = H, Y' = F, R = Et) (II). In a preemergence test II at 4 lb/acre applied to soil immediately after planting of seed, 12-14 days after treatment showed 100% control of green foxtail, watergrass, velvetleaf and mustard.

IT 113939-93-8P  
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

RN 113939-93-8 HCAPLUS

CN 2-Imidazolidinone, 4-ethyl-3-(4-fluorophenyl)-1-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)

10501317



L4 ANSWER 216 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:438586 HCAPLUS

DOCUMENT NUMBER: 109:38586

TITLE: Electrophoretic, dynamic, and static light scattering on charged polymer emulsions

AUTHOR(S): Lin, F. M. C.; Berry, G. C.; Frye, R. L.; Scala, L. C.

CORPORATE SOURCE: Dep. Chem., Carnegie-Mellon Univ., Pittsburgh, PA, 15213, USA

SOURCE: Journal of Applied Polymer Science (1988), 35(5), 1377-97

CODEN: JAPNAB; ISSN: 0021-8995

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Light scattering studies on dispersions formed by phase separation of a polymer-solvent-nonsolvent mixture show that the dispersions comprise charged droplets of the polymer-rich phase. The charge number is not large, and data on electrophoretic scattering and dynamic scattering in the absence of an external elec. field are both consistent with distribution of charge among the droplets. Data on the dependence of static scattering on concentration and scattering angle show that the droplets are also disperse in radius. The data are discussed in terms of an interaction potential among the charged droplets relating the electrostatic interactions to the charge number and radius of the droplets, and the ionic strength of the solvent.

IT 37725-18-1, PPA-M

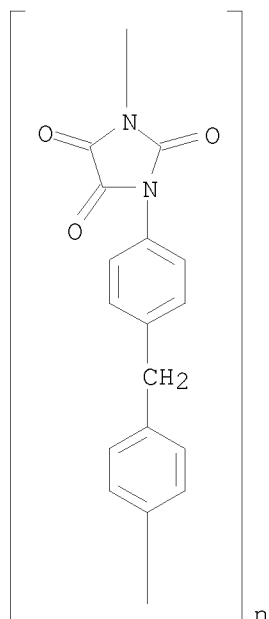
RL: PRP (Properties)

(charged emulsions of PPA-M, electrophoretic, dynamic and static light scattering studies on)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L4 ANSWER 217 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:223202 HCAPLUS

DOCUMENT NUMBER: 108:223202

TITLE: Antiblocking layers for thermal transfer films

INVENTOR(S): Ohno, Ken; Yoshimoto, Mitsuo; Ozaki, Yoshihide

PATENT ASSIGNEE(S): Diafoil Co., Ltd., Japan

SOURCE: Ger. Offen., 14 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3719342	A1	19871217	DE 1987-3719342	19870610
DE 3719342	C2	19970116		
JP 62292484	A	19871219	JP 1986-135810	19860611
JP 05060438	B	19930902		
GB 2191595	A	19871216	GB 1987-13540	19870610
GB 2191595	B	19891206		
US 4806422	A	19890221	US 1987-62083	19870610

PRIORITY APPLN. INFO.: JP 1986-135810 A 19860611

AB Transfer films with good thermal conductivity and transfer properties have parting films (0.01-1.9 g/m<sup>2</sup>) on 1 side, fusible color layers on the other, tensile strength  $\geq 78.5$  N/mm<sup>2</sup>, average surface roughness (Ra) 0.03-0.15  $\mu$ , and coefficient of friction (on glass)  $\leq 1.0$ . A 6.0- $\mu$  polyester film [tensile strength at 5% elongation (T5) 11 kg/mm<sup>2</sup>, Ra 0.06  $\mu$ ] was coated (0.15 g/m<sup>2</sup>) with a mixture of 100 parts 20% dispersion of siloxane-colloidal SiO<sub>2</sub>, 1.5 part polyether-silicone oil, and MEK-PhMe-MeOH-MeOCH<sub>2</sub>CH<sub>2</sub>OH to give a film with T5 11 kg/mm<sup>2</sup>, Ra 0.06, and

Updated Search

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friction coefficient 0.1. Coating this film with 4 g/m<sup>2</sup> color layer gave a satisfactory thermal transfer film.

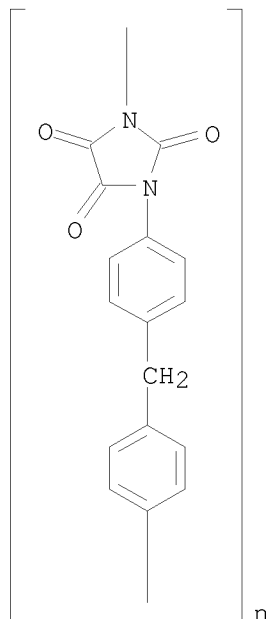
IT 37725-18-1

RL: USES (Uses)

(parting agents, for thermal transfer films)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

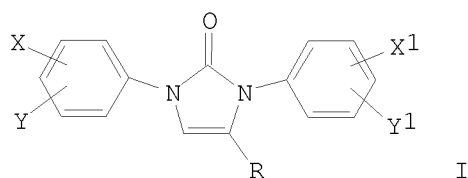


L4 ANSWER 218 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1988:167475 HCAPLUS  
DOCUMENT NUMBER: 108:167475  
TITLE: Preparation of cyclic ureas as herbicides  
INVENTOR(S): Felix, Raymond A.  
PATENT ASSIGNEE(S): Stauffer Chemical Co., USA  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4724261	A	19880209	US 1986-933833	19861124
PRIORITY APPLN. INFO.:			US 1986-933833	19861124
OTHER SOURCE(S):	MARPAT	108:167475		
GI				

Updated Search

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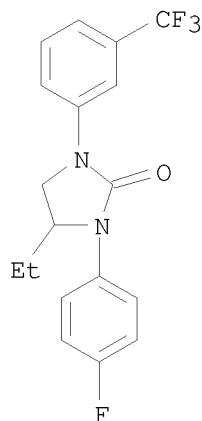


AB 1,3-Diphenyl-4-imidazolin-2-ones I (X, X1, Y, Y1 = H, alkyl, Me, CF3, alkoxy, alkylthio, alkylsulfonyl, cyano, Br, Cl, F, NO2;  $\geq 1$  of X, Y  $\neq$  H; R = H, C1-4 alkyl) and the corresponding 2-imidazolidinones, readily obtained by catalytic hydrogenation of I, were prepared as herbicides (no data). 3-F3CC6H4NHCH2CH2EtOH was N-protected by (Me3CO2C)2O and oxidized with NaOCl in the presence of Bu4P+Br- to the corresponding 2-butanone. After deprotection, the latter was cyclocondensed with 4-FC6H4NCO to give I (X = 3-F3C, X1 = 4-F, Y = Y1 = H, R = Et) which was hydrogenated over Pd/C to give 4-ethyl-3-(4-fluorophenyl)-1-[3-(trifluoromethyl)phenyl]-2-imidazolidinone.

IT 113939-93-8P  
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of, as herbicide)

RN 113939-93-8 HCAPLUS

CN 2-Imidazolidinone, 4-ethyl-3-(4-fluorophenyl)-1-[3-(trifluoromethyl)phenyl]- (CA INDEX NAME)



L4 ANSWER 219 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:152238 HCAPLUS

DOCUMENT NUMBER: 108:152238

TITLE: Heat-resistant electrically insulating thermosetting resin compositions

INVENTOR(S): Ikeda, Tadao; Oki, Norifumi; Miyoshi, Kunihiro; Koyama, Takeo; Yano, Katsumi

PATENT ASSIGNEE(S): Tonen Sekiyu Kagaku, Inc., Japan

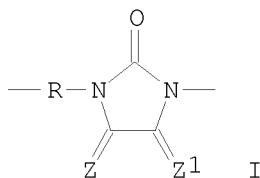
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

Updated Search

10501317

DOCUMENT TYPE: CODEN: JKXXAF  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: Japanese  
 PATENT INFORMATION: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62207362	A	19870911	JP 1986-47395	19860306
JP 03054987	B	19910821		
PRIORITY APPLN. INFO.: GI			JP 1986-47395	19860306



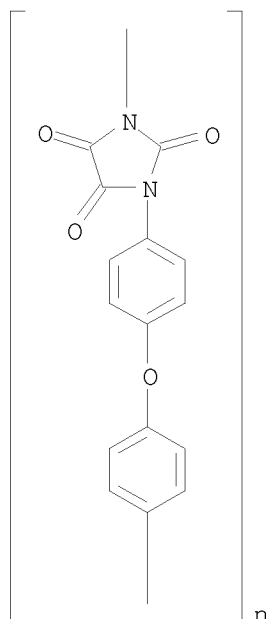
AB Title compns. comprise epoxy resins, hardeners, and polyparabanic acid derivs. containing repeating unit I [R = (Me substituted) m- or p-phenylene, 1,5-C10H6, p-C6H3R1X-p-C6H3R2, C6H9R3X1C6H9R4; R1-4 = H, Me; X, X1 = direct bond, CH2, O, S, SO2, CO, CMe2; Z, Z1 = O, NH] and  $\geq 75\%$  I (Z = Z1 = O; all R is not p-C6H4CH2-p-C6H4). A solution of 26 g HCN in 300 mL DMF was treated with 3.6 g PhNCO and a solution of 174 g 2,4-TDI in 500 mL DMF, then the mixture was saturated by NaCN and treated for 30 min to give a polymer, which was hydrolyzed by aqueous HCl to give a product (II). A solution of 100 parts II in 60 parts DMF/N-methylpyrrolidone was blended with Epikote 828 100, dicyandiamide 3, and Al acetylacetate 0.1 part to give a colorless transparent varnish with pot life  $\geq 1$  mo. A stainless plate was screen printed with the varnish and cured 10 min at 200° to give a coated plate with volume resistivity  $5.2 \times 10^{15} \Omega\text{-cm}$  at 150° and  $1.3 \times 10^{13} \Omega\text{-cm}$  at 200°.

IT 31626-60-5D, hydrolyzed  
 RL: USES (Uses)  
 (epoxy resin coatings containing, heat-resistant, elec. insulating)

RN 31626-60-5 HCAPLUS

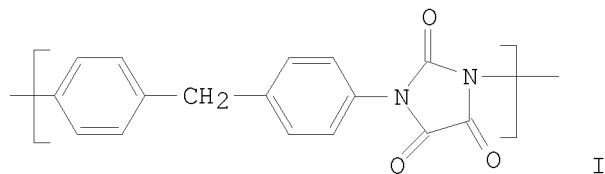
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
 (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 220 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1988:133059 HCAPLUS  
DOCUMENT NUMBER: 108:133059  
TITLE: Insulating thermosetting epoxy resin compositions with  
excellent heat resistance  
INVENTOR(S): Yano, Katsumi; Miyoshi, Kunihiro; Ikeda, Tadao; Oki,  
Norifumi  
PATENT ASSIGNEE(S): Tonen Sekiyu Kagaku K. K., Japan; Toyama Prefecture  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 62207361	A	19870911	JP 1986-47393	19860306
JP 03054986	B	19910821		
PRIORITY APPLN. INFO.: GI			JP 1986-47393	19860306



Updated Search



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AB Title compns. with excellent adhesion and long pot life, useful for potting, etc. comprise poly(parabanic acid) derivative (I), epoxy resins, and hardeners. Thus, Epikote 807 (II) 100, dicyandiamide 3, and Al acetylacetonate 0.1 part were mixed with a solution of 100 parts I (inherent viscosity 0.20, prepared by condensing MDI with HCN followed by hydrolysis) in 67 parts N-methylpyrrolidone to give a colorless transparent viscous varnish with pot life  $\geq 1$  mo at room temperature. Painting this varnish onto a stainless steel plate and heating at 200° for 10 min gave a 40- $\mu$ m film with higher volume resistivity and heat resistance than a control from 100 parts II and 56 parts Epicure H-3 (ketimine).

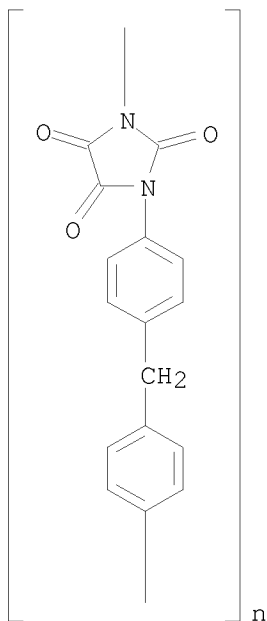
IT 37725-18-1

RL: USES (Uses)

(elec. insulators containing epoxy resins and, with long pot life and good heat resistance)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 221 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:133012 HCAPLUS

DOCUMENT NUMBER: 108:133012

TITLE: Metalization of permselective membranes for gas separation

INVENTOR(S): Sirinyan, Kirkor; Hildenbrand, Karlheinz; Von Gizycki, Ulrich; Merten, Rudolf; Perrey, Hermann; Wolf, Gerhard Dieter

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 9 pp.

CODEN: GWXXBX

Updated Search

10501317

DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3615831	A1	19871112	DE 1986-3615831	19860510
EP 245684	A2	19871119	EP 1987-106081	19870427
EP 245684	A3	19881109		
R: CH, DE, FR, GB, LI, SE				
JP 62274075	A	19871128	JP 1987-109920	19870507
US 4804475	A	19890214	US 1987-47241	19870507

PRIORITY APPLN. INFO.: DE 1986-3615831 A 19860510

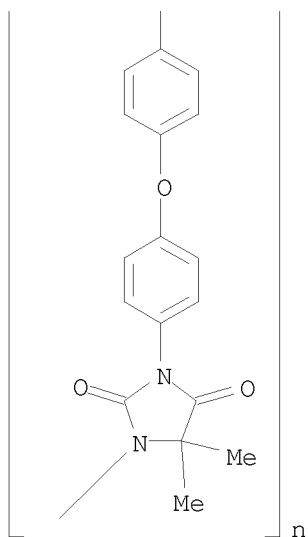
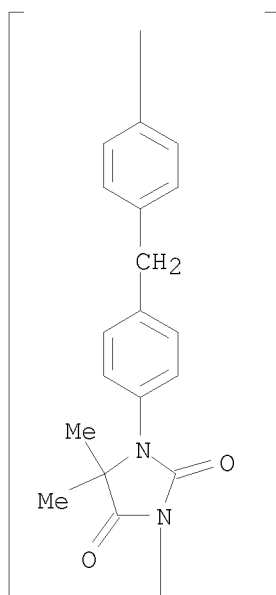
AB Permselective membranes useful in the separation of inert, reactive, or biogases are prepared by activating polymer membranes with organometallic complexes of Ag, Au, Pt, and/or Pd followed by electroless wet plating with 0.1-10  $\mu$  metal. A permeable membrane of adipic acid-1,4-butanediol-MDI copolymer (average pore size 500 nm) was cast on a polyester film, activated in 1 L C<sub>2</sub>Cl<sub>4</sub> containing 0.25 mg mesityl oxide-PdCl<sub>2</sub> complex for 90 s at room temperature, dried at room temperature, and electrolessly plated with 0.5  $\mu$  Ni which acquired the same average pore size as the support. When strips of the membrane were soaked in 1% peroxidase-glucose oxidase at pH 5.5 and dried, glucose sorbed on the surface could be determined potentiometrically.

IT 58714-01-5

RL: USES (Uses)  
(membranes, permselective, metalization of)

RN 58714-01-5 HCAPLUS

CN Poly[(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 222 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1988:133004 HCAPLUS  
 DOCUMENT NUMBER: 108:133004  
 TITLE: Preparation of semipermeable composite membranes

10501317

INVENTOR(S): Fischer, Wolfgang  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 9 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3614755	A1	19871105	DE 1986-3614755	19860430
EP 243876	A2	19871104	EP 1987-105945	19870423
EP 243876	A3	19900627		
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 62262712	A	19871114	JP 1987-102114	19870427
PRIORITY APPLN. INFO.:			DE 1986-3614755	A 19860430

AB The title membranes, selective and useful in pressure filtration and reverse osmosis, are prepared by the reaction of solns. of primary or secondary polyamines with solns. of bisulfite-blocked isocyanates on the surface of porous supports. A film of polyester fiber (100 g/m<sup>2</sup>)-reinforced polyhydantoin (mol. weight 80,000) was dipped for 10 min in a 3.2% aqueous solution of bisulfite-blocked hexamethylene diisocyanate and then for 5 min in a 2% aqueous solution of polyethylenimine and cured for 15 min to give a membrane. When tested with 1% NaCl, this membrane gave a flux of 150 L/M<sup>2</sup>-day and salt retention 98%.

IT 36247-75-3  
RL: USES (Uses)  
(supports, for semipermeable films for pressure filtration and reverse osmosis)

RN 36247-75-3 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

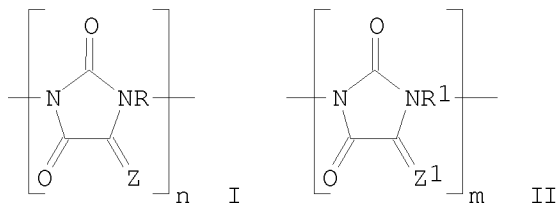
L4 ANSWER 223 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1988:38615 HCAPLUS  
DOCUMENT NUMBER: 108:38615  
TITLE: Amino-terminated parabanic acid oligomers  
INVENTOR(S): Imai, Yoichi; Taguchi, Yoshio; Ikeda, Tadao; Imai, Chihiro  
PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

Updated Search

10501317

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

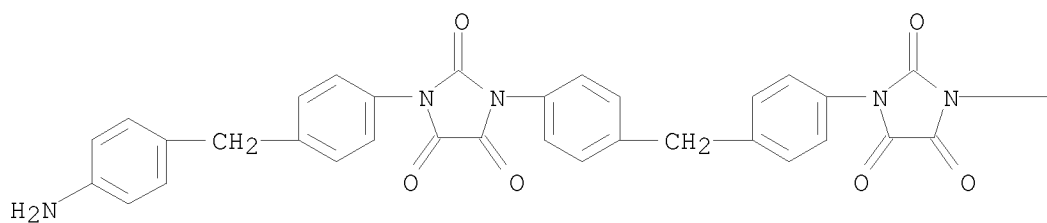
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62123175	A	19870604	JP 1985-262369	19851125
PRIORITY APPLN. INFO.: GI			JP 1985-262369	19851125



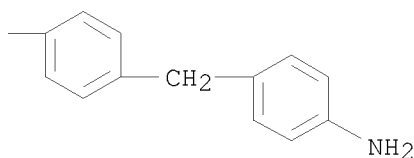
AB The title compds. having intrinsic viscosity 0.01-0.3 dL/g contain parabanic acid derivative units I and II [Z, Z1 = O, NH; R, R1 = divalent aromatic groups; n, m = 0-10; (n + m) = 1-10] and the terminal group H2NR on the left and NH2 on the right end. Thus, 25 g MDI was treated with 1.3 g HCN in DMF in the presence of NaCN with stirring for 1 h and hydrolyzed with 96% aqueous H2SO4 at 70° to give 21 g oligomers showing intrinsic viscosity 0.13 dL/g.

IT 111143-38-5P  
RL: PREP (Preparation)  
(preparation of, by reaction of diisocyanates with hydrogen cyanide)  
RN 111143-38-5 HCAPLUS  
CN Imidazolidinetrione, 1,1'-(methylenedi-4,1-phenylene)bis[3-[4-[(4-aminophenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



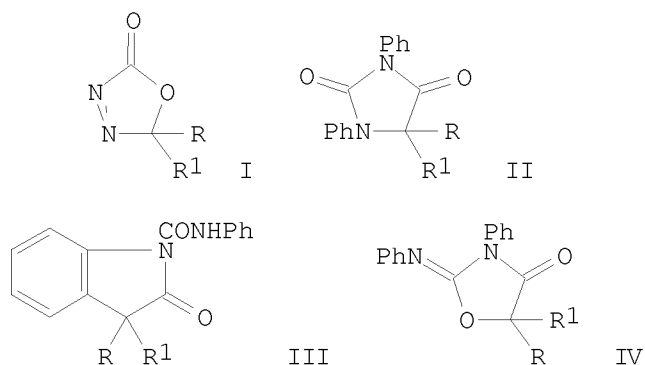
PAGE 1-B



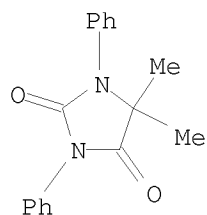
Updated Search

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L4 ANSWER 224 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1988:37577 HCAPLUS  
DOCUMENT NUMBER: 108:37577  
TITLE: Reactions of diazoalkanes with isocyanates. Synthesis  
of imidazolidine-2,4-diones, oxindoles, and  
oxazolidinones  
AUTHOR(S): Fulton, Janet B.; Warkentin, John  
CORPORATE SOURCE: Dep. Chem., McMaster Univ., Hamilton, ON, L8S 4M1,  
Can.  
SOURCE: Canadian Journal of Chemistry (1987), 65(6), 1177-84  
CODEN: CJCHAG; ISSN: 0008-4042  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 108:37577  
GI



AB Thermal reaction of 5,5-dialkyl- $\Delta^3$ -1,3,4-oxadiazolin-2-ones I (e.g.,  
R = Me; R1 = Me, Et, CHMe2, CH2CHMe2, CH2Ph) with PhNCO in PhNO2 at  
150° affords imidazolidinediones II, N-carbamoyldialkyloxindoles  
III, and oxazolidinones IV. II-IV arise from attack of a diazoalkane,  
generated in situ from I by thermal cycloreversion, on the NCO group.  
IT 87976-13-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 87976-13-4 HCAPLUS  
CN 2,4-Imidazolidinedione, 5,5-dimethyl-1,3-diphenyl- (CA INDEX NAME)



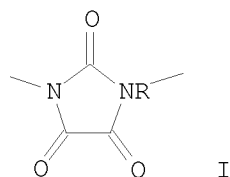
Updated Search

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L4 ANSWER 225 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1987:599812 HCAPLUS  
DOCUMENT NUMBER: 107:199812  
TITLE: Gas-separating membranes  
INVENTOR(S): Sawada, Shuichi; Ikeda, Tadao; Imai, Chihiro  
PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 62045319	A	19870227	JP 1985-184073	19850823
PRIORITY APPLN. INFO.:			JP 1985-184073	19850823

GI



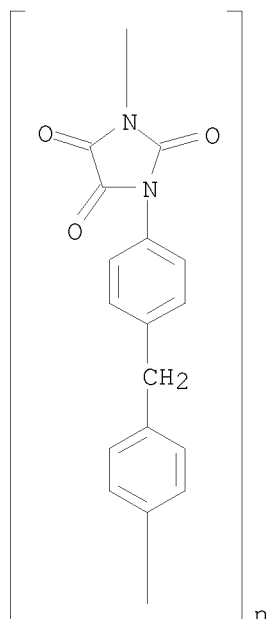
AB Title membranes are composed of bromo- or copolymers having repeating units I (R = organic group) and have  $\leq 20\text{-}\mu$  gas-separating dense layer. A solution of a polymer having I (R = 4,4'-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>) in DMF was spread on a glass plate and dried 30 h in N at room temperature, 12 h at 70° and 10 mm Hg, and 2 h at 150° to give a membrane having a 10- $\mu$  dense layer which had H permeation  $1.3 + 10^{-9}$  cm<sup>3</sup>/cm/cm<sup>2</sup>-s-cm Hg and  $3.9 + 10^{-9}$  cm<sup>3</sup>-cm/cm<sup>2</sup>-s-cm Hg and H/N separation factor 118 and 100 at 30° and 100°, resp.

IT 37725-18-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(membranes, for gas separation)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L4 ANSWER 226 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1987:599556 HCAPLUS  
 DOCUMENT NUMBER: 107:199556  
 TITLE: Electrically conductive organic polymers  
 INVENTOR(S): Hocker, Juergen; Rottmaier, Ludwig; Reinking, Klaus;  
 Kirsch, Juergen; Fuellmann, Heinz Josef  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 3542231	A1	19870604	DE 1985-3542231	19851129
EP 224174	A2	19870603	EP 1986-115947	19861118
EP 224174	A3	19881102		
R: CH, DE, FR, GB, IT, LI				
US 4798686	A	19890117	US 1986-932077	19861118
JP 62131068	A	19870613	JP 1986-278896	19861125
PRIORITY APPLN. INFO.:			DE 1985-3542231	A 19851129

AB The title compns. useful as plastics, films, and coatings, contain 0.5-95% S-containing pyropolymer prepared by thermolysis of S-crosslinked aroms. at 500-2000°. Casting 1 kg 10% CH<sub>2</sub>Cl<sub>2</sub> solution of bisphenol A polycarbonate containing 11.1 g pyropolymer (from fluorene and S, particle size <12 μ) to wet thickness 1 mm and drying gave an antistatic film with surface resistance 1.9 + 10<sup>9</sup> Ω.

IT 36247-75-3  
 RL: USES (Uses)

Updated Search



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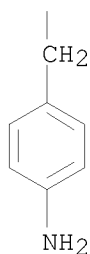
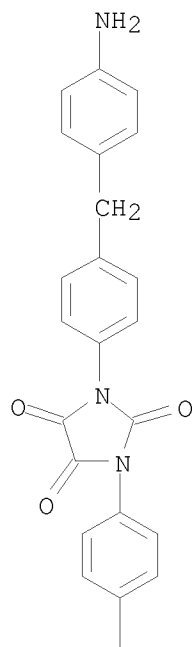
(elec. conductive, containing pyropolymers)  
RN 36247-75-3 HCAPLUS  
CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 227 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1987:599504 HCAPLUS  
DOCUMENT NUMBER: 107:199504  
TITLE: Parabanic acid oligomer compositions  
INVENTOR(S): Imai, Yoichi; Taguchi, Yoshio; Ikeda, Tadao; Imai, Chihiro  
PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 62124124	A	19870605	JP 1985-262370	19851125
PRIORITY APPLN. INFO.:			JP 1985-262370	19851125
AB	Heat resistant thermosetting resins are prepared using parabanic acid oligomers (as diamines) and aromatic bismaleimides. A mixture containing 25 g			
MDI,	13.5 g HCN, and 200 mL DMF was mixed with 0.01 g NaCN (in DMF), stirred at 70° for 1 h, and hydrolyzed with 10.7 g 96% H2SO4 (in 200 mL H2O) to give parabanic acid oligomers with intrinsic viscosity 0.13 dL/g (30° C, 0.5 g/dL), mixed (18.3 g) with 35.8 g N,N'-4,4'-bismaleimide diphenylmethane and DMF to prepare 40% solution, degassed, heated at 8° for 8 h (to remove DMF), then at 150° for 3 h and 200° for 8 h to give a resin with 5% weight loss temperature 270°.			
IT	111143-36-3P RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process) (preparation and polymerization of, with bismaleimides)			
RN	111143-36-3 HCAPLUS			
CN	Imidazolidinetrione, bis[4-[(4-aminophenyl)methyl]phenyl]- (9CI) (CA INDEX NAME)			

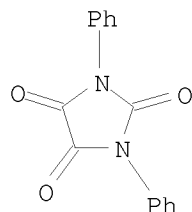


L4 ANSWER 228 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1987:553990 HCAPLUS  
 DOCUMENT NUMBER: 107:153990  
 TITLE: Extremely reactive carbon-carbon double bonds. VI.  
 Tris(methylphenylamino)methane. The chemistry of  
 orthoamides  
 AUTHOR(S): Schoenberg, Alexander; Singer, Erich; Stephen, Werner  
 CORPORATE SOURCE: Tech. Univ. Berlin, Berlin, D-1000/12, Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1987), 120(9), 1581-8  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 107:153990  
 AB Reactions of (PhNMe)3CH (I) with S, Se, PhSH, CH2(CN)2, 1,3-indanedione,

10501317

9-fluorenone hydrazone, PhMgBr, Br<sub>2</sub>, MeCOSH, PhNHCONHPh, ClCOCOC1, 9,9-dichloroxanthene, PhNCO, and PhCHClCClPh were described and the mechanisms were discussed. The decomposition of 9-diazofluorene in xylene by the catalytic effect of I is discussed.

IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 229 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:176951 HCAPLUS

DOCUMENT NUMBER: 106:176951

TITLE: Strictly alternating copolymers containing parabanic acid and amide or imide moieties

AUTHOR(S): Bennett, Cynthia; Heitz, Walter

CORPORATE SOURCE: Fachber. Phys. Chem., Philipps-Univ. Marburg, Marburg, D-3550, Fed. Rep. Ger.

SOURCE: Makromolekulare Chemie (1987), 188(3), 475-93  
CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB 1,3-Bis(4-aminophenyl)imidazolidinetrione dihydrochloride (I) [107701-60-0] was synthesized and used as starting material for the synthesis of strictly alternating copolymers with diacid chlorides. Fully aromatic copolymers containing parabanic acid and amide moieties exhibited high glass temps. and good thermal stability. Meltable copolymers with parabanic acid and amide moieties could be obtained by introducing flexible aliphatic spacers. The use of an unusually short, but sym. branched spacer was particularly effective. A strictly alternating, thermally stable polyimide [107982-10-5] was synthesized from I and pyromellitic dianhydride [89-32-7]. By using a trimethylsilyl ester, the imidization temperature could be lowered by 100°.

IT 107761-00-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and glass-transition temperature of)

RN 107761-00-2 HCAPLUS

CN 1,4-Benzenedicarbonyl dichloride, polymer with bis(4-aminophenyl)imidazolidinetrione (9CI) (CA INDEX NAME)

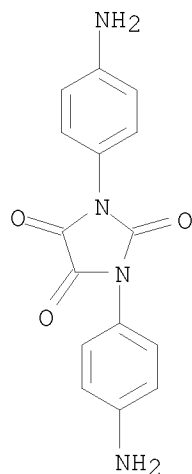
CM 1

CRN 107709-38-6

CMF C15 H12 N4 O3

Updated Search

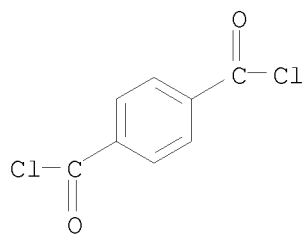
10501317



CM 2

CRN 100-20-9

CMF C8 H4 Cl2 O2



L4 ANSWER 230 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:102163 HCAPLUS

DOCUMENT NUMBER: 106:102163

TITLE: Reaction of nitromethane with aryl isocyanates in the presence of triethylamine. A formation of

1,3-diaryl-5-(hydroxyimino)imidazolidine-2,4-diones

AUTHOR(S): Shimizu, Tomio; Hayashi, Yoshiyuki; Teramura, Kazuhiro

CORPORATE SOURCE: Fac. Ind. Arts, Kyoto Inst. Technol., Kyoto, 606, Japan

SOURCE: Bulletin of the Chemical Society of Japan (1986), 59(6), 2038-40

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

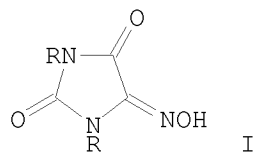
LANGUAGE: English

OTHER SOURCE(S): CASREACT 106:102163

GI

Updated Search

10501317



AB Diarylhydroxyiminoimidazolidinediones I(R = Ph, 3-MeC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>) were obtained from the reactions of MeNO<sub>2</sub> with several aryl isocyanates in the presence of a trace amount of Et<sub>3</sub>N and their structures were established from spectroscopic evidence and their chemical behavior.

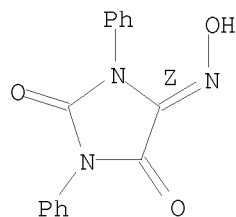
IT 106921-40-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and acylation of)

RN 106921-40-8 HCAPLUS

CN Imidazolidinetrione, diphenyl-, 4-oxime, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L4 ANSWER 231 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:50114 HCAPLUS

DOCUMENT NUMBER: 106:50114

TITLE: Chemistry of the adducts of N,N'-diphenylformamidine with oxalyl chloride and phosgene

AUTHOR(S): Barsa, E. A.; Richter, R.

CORPORATE SOURCE: North Haven Lab., Dow Chem. USA, North Haven, CT, 06473, USA

SOURCE: Journal of Organic Chemistry (1986), 51(23), 4483-5  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

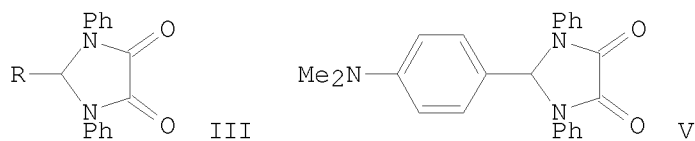
LANGUAGE: English

OTHER SOURCE(S): CASREACT 106:50114

GI

Updated Search

10501317



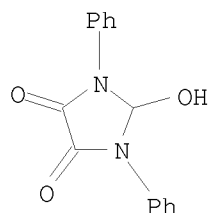
AB PhN:CHNHPH (I) was treated with COCl<sub>2</sub> to give ClCH(NPhCOCl)<sub>2</sub> (II), whereas I was cyclized with (COCl)<sub>2</sub> to give imidazolidinedione III (R = H) (IV). II was hydrolyzed to give PhN(CHO)COCl and PhNCO, whereas the treatment of II with p-MeOC<sub>6</sub>H<sub>4</sub>OH gave p-MeOC<sub>6</sub>H<sub>4</sub>OCH(NPhCOCl). IV was treated with nucleophiles HR<sub>1</sub> (R<sub>1</sub> = OH, OMe, OAc, NHPH, NPhCH<sub>2</sub>Ph) to give the corresponding III (R = R<sub>1</sub>). Treatment of IV with PhNMe<sub>2</sub> gave aniline derivative V.

IT 104716-68-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and oxidation and thermolysis of)

RN 104716-68-9 HCAPLUS

CN 4,5-Imidazolidinedione, 2-hydroxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 232 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:34231 HCAPLUS

DOCUMENT NUMBER: 106:34231

TITLE: Composites of resins and inorganic materials

INVENTOR(S): Numata, Shunichi; Ohara, Shuichi; Fujisaki, Koji;  
Ikeda, Takae; Kaneshiro, Tokuyuki

PATENT ASSIGNEE(S): Hitachi, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

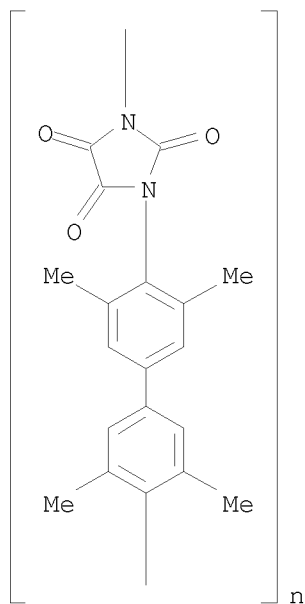
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 61175035	A	19860806	JP 1985-16889	19850131
PRIORITY APPLN. INFO.:			JP 1985-16889	19850131

AB Low-thermal-expansion resins (except polyimides in Japanese Patent Application Number 84-180549) consisting of unsatd. cyclic hydrocarbon chains or heterocyclic chains having mol. axis bending angles <40° are united with inorg. materials. Thus, a poly(phenyleneoxadiazole) film was laminated with a Cu foil with an adhesive to prepare a flexible printed

Updated Search

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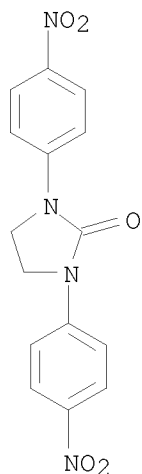
circuit board.  
IT 106186-20-3  
RL: USES (Uses)  
(laminates with copper foils, for flexible printed circuit boards)  
RN 106186-20-3 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)(3,3',5,5'-tetramethyl[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)



L4 ANSWER 233 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1986:611266 HCAPLUS  
DOCUMENT NUMBER: 105:211266  
ORIGINAL REFERENCE NO.: 105:34057a,34060a  
TITLE: The effect of substituted imidazolones on the stability of smokeless powders  
AUTHOR(S): Sallam, M. M. M.; Bassiouni, H. H.  
CORPORATE SOURCE: Fac. Sci., Cairo Univ., Giza, Egypt  
SOURCE: Internationale Jahrestagung - Fraunhofer-Institut fuer Treib- und Explosivstoffe (1986), 17th(Anal. Propellants Explos.: Chem. Phys. Methods), 55/1-55/10  
CODEN: IFTEDV; ISSN: 0722-4087  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The preparation and use of 1,3-diphenylimidazolone (I) [21377-16-2], the o-, m-, and p-nitro derivs. of I, and 4,5-diphenylimidazolone [642-36-4] as stabilizers in a double-base smokeless powder are described. The maximum stabilizing effect was attained with I, and o- and p-nitro derivs. of I.  
IT 30515-45-8  
RL: USES (Uses)  
(stabilizer, in smokeless gunpowder)  
RN 30515-45-8 HCAPLUS  
CN 2-Imidazolidinone, 1,3-bis(4-nitrophenyl)- (CA INDEX NAME)

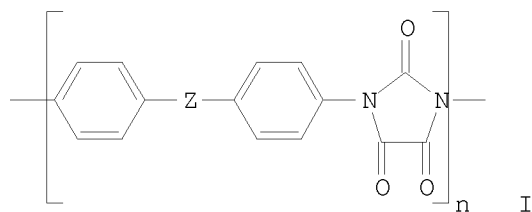
Updated Search

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L4 ANSWER 234 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1986:499295 HCAPLUS  
DOCUMENT NUMBER: 105:99295  
ORIGINAL REFERENCE NO.: 105:16051a,16054a  
TITLE: Vapor deposition film circuit boards  
INVENTOR(S): Okunoyama, Teru  
PATENT ASSIGNEE(S): Toshiba Chemical Corp., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61058113	A	19860325	JP 1984-179224	19840830
JP 05018208	B	19930311		
PRIORITY APPLN. INFO.: GI			JP 1984-179224	19840830



AB The title boards consist of a substrate, an insulation film prepared by coating with and curing an insulation varnish containing an aprotic polar

Updated Search



10501317

solvent, and parabanic acid polymer I ( $Z = \text{CH}_2$ , O, or  $\text{SO}_2$ ,  $n = \text{pos. integer}$ ), and conductive circuits formed by vapor deposition on the insulation film. The insulation varnish cures at low temperature to give an insulation film having excellent adhesion, insulation characteristics, and smoothness, and the circuit boards are useful for load cells. Thus, a solution of I (prepared from diaminodiphenylmethane) 30 in dimethylacetamide 270 and a coupling agent 0.03 part, coated twice on Al and cured at  $150^\circ$  for 1 h to give a  $21\text{-}\mu$  coating, was plated with Ni, Cr, Ti, and Cu by vapor deposition, coated with resist patterns, and etched to give a vapor deposition film circuit board with good adhesion of the insulation film, and insulation resistance  $1.4 \times 10^{15}$  and  $1.3 \times 10^{15} \Omega\cdot\text{cm}$  when left in an air atmosphere at  $40^\circ$  with relative humidity 95% for 96 h.

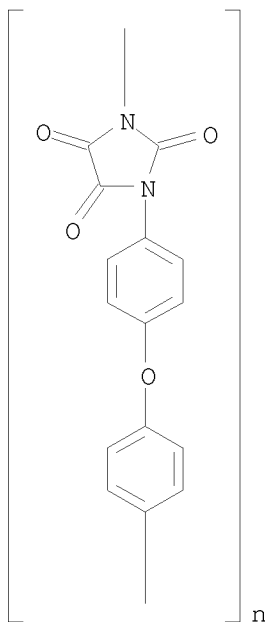
IT 31626-60-5P

RL: PREP (Preparation)

(preparation of, as elec. insulating film for elec. circuit boards)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 235 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:425859 HCAPLUS

DOCUMENT NUMBER: 105:25859

ORIGINAL REFERENCE NO.: 105:4335a, 4338a

TITLE: Synthesis and properties of heat-resistant polymers containing hydantoin rings for use in electrically insulating lacquers

AUTHOR(S): Cynkowska, Grazyna; Zakrzewski, Jan; Wardzinska, Elzbieta

CORPORATE SOURCE: Inst. Chem. Przem., Warsaw, Pol.

Updated Search

10501317

SOURCE: Polimery (Warsaw, Poland) (1985), 30(11-12), 449-54  
CODEN: POLIA4; ISSN: 0032-2725

DOCUMENT TYPE: Journal

LANGUAGE: Polish

AB Polyhydantoin resins were prepared by reacting N,N'-bis(ethoxycarbonylmethyl)-1,3-diaminobenzene (I) [42237-73-0] or N,N'-bis(ethoxycarbonylmethyl)-4,4'-diaminodiphenylmethane [10029-23-9] with MDI or TDI followed by cyclization of the obtained polyester-polyureas in melt or solution. The chemical structure of the resins was confirmed by <sup>1</sup>H NMR, <sup>13</sup>C NMR, and IR spectroscopy. The resins (especially those with higher mol. wts.) exhibited poor solubility in organic solvents

(with

exception of m-cresol) at ambient temperature. Thermal anal. showed that the thermal stability of the polymers depended significantly on their chemical structure, mol. weight, and mode of cyclization, but a rapid weight loss was observed in all resins of  $\geq 345^\circ$ . Modification of elec.

insulating polyester lacquer for Cu elec. conductors with 9% cyclized 1:1 I-MDI copolymer [26249-23-0] resulted in increased thermal stability and elasticity of the lacquer.

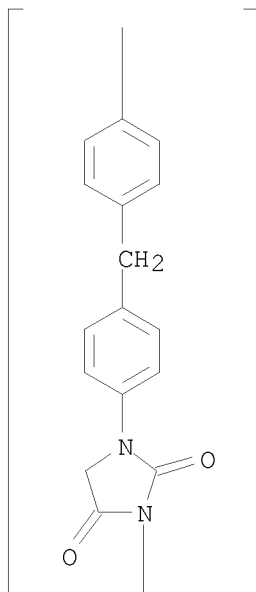
IT 31780-80-0P

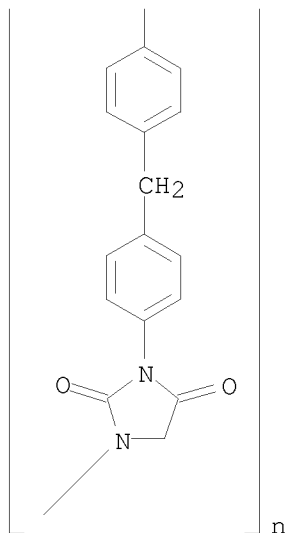
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and properties of)

RN 31780-80-0 HCAPLUS

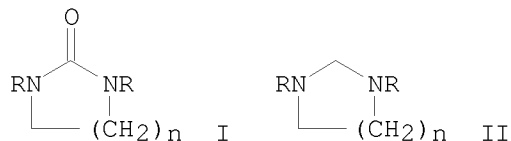
CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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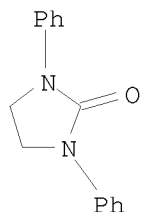
L4 ANSWER 236 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1986:406482 HCAPLUS  
 DOCUMENT NUMBER: 105:6482  
 ORIGINAL REFERENCE NO.: 105:1209a,1212a  
 TITLE: Reduction of cyclic ureas with lithium aluminum hydride  
 AUTHOR(S): Bates, Hans Aaron; Condulis, Nicholas; Stein, Nora L.  
 CORPORATE SOURCE: Dep. Chem., State Univ. New York, Stony Brook, NY, 11794-3400, USA  
 SOURCE: Journal of Organic Chemistry (1986), 51(12), 2228-9  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 105:6482  
 GI



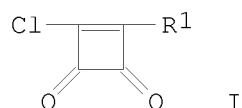
AB Dialkyl-2-imidazolidinones I (R = Me, Et, PhCH<sub>2</sub>, Ph; n = 1) and dialkyltetrahydropyrimidinones I (R = Me, Et, PhCH<sub>2</sub>; n = 2) were reduced to the amins II when treated with excess LiAlH<sub>4</sub> in ether. The rate of reduction is affected dramatically by the alkyl substituents and slightly by ring size. Although LiAlH<sub>4</sub> reduces cyclic ureas under relatively mild conditions, reduction of ureas occurs less readily than reduction of other carbonyl compds.

10501317

IT 728-24-5  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of, by lithium aluminum hydride, rate of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



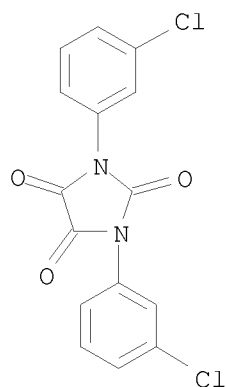
L4 ANSWER 237 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1986:109063 HCAPLUS  
DOCUMENT NUMBER: 104:109063  
ORIGINAL REFERENCE NO.: 104:17261a,17264a  
TITLE: Syntheses, reactivities, and spectroscopic properties  
of chloroformamidines from squaric acid dichloride  
AUTHOR(S): Zinner, Gerwalt; Gruenefeld, Johann  
CORPORATE SOURCE: Inst. Pharm. Chem., Tech. Univ. Braunschweig,  
Braunschweig, D-3300, Fed. Rep. Ger.  
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1985),  
318(11), 992-8  
CODEN: ARPMAS; ISSN: 0365-6233  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 104:109063  
GI



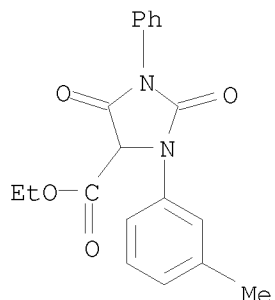
AB Reactions of C(:NR)<sub>2</sub> (R = CHMe<sub>2</sub>, cyclohexyl, Ph, 4-MeOC<sub>6</sub>H<sub>4</sub>, 3-ClC<sub>6</sub>H<sub>4</sub>, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>) with squaric acid dichloride gave chloroformamidines which were hydrolyzed to yield ureas I (R<sub>1</sub> = NRCONHR) or (RNH)<sub>2</sub>CO and squaric acid.  
IT 10300-64-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 10300-64-8 HCAPLUS  
CN Imidazolidinetrione, bis(3-chlorophenyl)- (9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 238 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1986:68379 HCAPLUS  
DOCUMENT NUMBER: 104:68379  
ORIGINAL REFERENCE NO.: 104:10929a,10932a  
TITLE: Infrared carbonyl absorption of hydantoin derivatives  
AUTHOR(S): Sucharda-Sobczyk, Anna; Sedzik-Hibner, Dorota;  
Prelicz, Danuta  
CORPORATE SOURCE: Inst. Org. Phys. Chem., Polytech. Univ., Wroclaw,  
50370, Pol.  
SOURCE: Polish Journal of Chemistry (1984), 58(10-12), 1107-14  
CODEN: PJCHDQ; ISSN: 0137-5083  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The carbonyl absorptions of 20 hydantoin derivs. were studied. The  
doublet A-I band was ascribed to coupling of sym. and asym. vibrations of  
both ring carbonyls.  
IT 88100-52-1  
RL: PRP (Properties)  
(IR of)  
RN 88100-52-1 HCAPLUS  
CN 4-Imidazolidinecarboxylic acid, 3-(3-methylphenyl)-2,5-dioxo-1-phenyl-,  
ethyl ester (CA INDEX NAME)



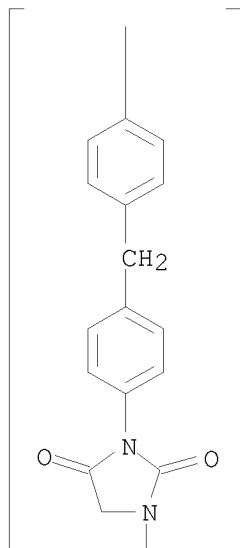
L4 ANSWER 239 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

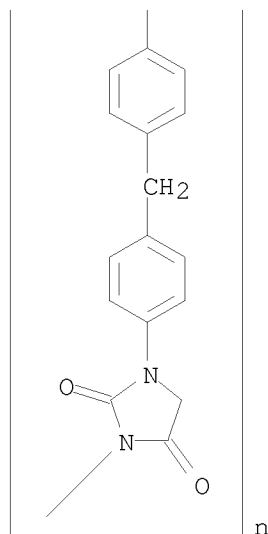
Updated Search

10501317

ACCESSION NUMBER: 1986:44087 HCAPLUS  
DOCUMENT NUMBER: 104:44087  
ORIGINAL REFERENCE NO.: 104:7019a,7022a  
TITLE: Effect of imide hydantoin copolymers on residual current of modified metal oxide-semiconductor transistors  
AUTHOR(S): Yokoyama, Takashi; Kinjo, Noriyuki; Wakashima, Yoshiaki  
CORPORATE SOURCE: Hitachi Res. Lab., Hitachi, 319-12, Japan  
SOURCE: Angewandte Makromolekulare Chemie (1985), 136, 101-14  
CODEN: ANMCBO; ISSN: 0003-3146  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
AB The effect was studied of the title polymers on the residual current of MOSFETs. The residual current increases as the polymer softening point increases and increases as the concentration of hydantoin groups increases.  
IT 99792-18-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reactions of, in polymer preparation for MOSFET)  
RN 99792-18-4 HCAPLUS  
CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

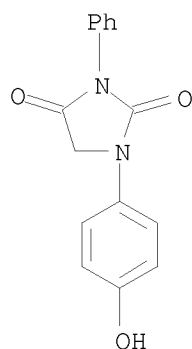
PAGE 1-A





L4 ANSWER 240 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1986:34130 HCAPLUS  
 DOCUMENT NUMBER: 104:34130  
 ORIGINAL REFERENCE NO.: 104:5605a,5608a  
 TITLE: Reaction of phenyl isocyanate with silylated  
 hydroxy(carboxy)phenylaminoacetic acids and some  
 reactions of the resulting adducts  
 AUTHOR(S): Vostokov, I. A.  
 CORPORATE SOURCE: Gos. Nauchno-Issled. Proekt. Inst. Azotn. Prom. Prod.  
 Org. Sint., Dzerzhinsk, USSR  
 SOURCE: Zhurnal Obshchei Khimii (1985), 55(6), 1350-4  
 CODEN: ZOKHA4; ISSN: 0044-460X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 104:34130  
 AB The reaction of PhNCO with RC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CO<sub>2</sub>SiMe<sub>3</sub> (R = p-Me<sub>3</sub>SiO, o-Me<sub>3</sub>SiO<sub>2</sub>C)  
 gave (PhNHCO)(RC<sub>6</sub>H<sub>4</sub>)NCH<sub>2</sub>CO<sub>2</sub>SiMe<sub>3</sub> (I). Some reactions of I were studied.  
 Thus, hydrolysis of I (R = Me<sub>3</sub>SiO) gave 87.5% (PhNHCO)(p-HOC<sub>6</sub>H<sub>4</sub>)NCH<sub>2</sub>CO<sub>2</sub>H.  
 IT 99692-22-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 99692-22-5 HCAPLUS  
 CN 2,4-Imidazolidinedione, 1-(4-hydroxyphenyl)-3-phenyl- (CA INDEX NAME)

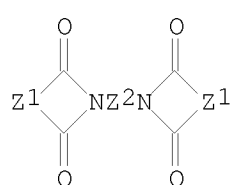
10501317



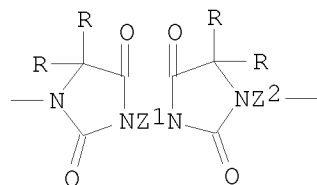
L4 ANSWER 241 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1985:542892 HCAPLUS  
 DOCUMENT NUMBER: 103:142892  
 ORIGINAL REFERENCE NO.: 103:22893a, 22896a  
 TITLE: Curable resins  
 INVENTOR(S): Stenzenberger, Horst  
 PATENT ASSIGNEE(S): Boots Co. PLC, UK  
 SOURCE: Eur. Pat. Appl., 25 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 141612	A2	19850515	EP 1984-307294	19841024
EP 141612	A3	19861105		
EP 141612	B1	19900411		
R: BE, CH, DE, FR, IT, LI, NL, SE				
GB 2148911	A	19850605	GB 1984-26891	19841024
GB 2148911	B	19861126		
CA 1226390	A1	19870901	CA 1984-466612	19841030
JP 60115630	A	19850622	JP 1984-232261	19841102
JP 05064184	B	19930914		
ES 537322	A1	19850901	ES 1984-537322	19841102
US 4806419	A	19890221	US 1987-23656	19870306
PRIORITY APPLN. INFO.:			GB 1983-29530	A 19831104
			US 1984-600058	A1 19841012
			US 1986-856689	A1 19860425

GI



I



II

Updated Search



AB Curable compns., useful for fiber-reinforced laminates and adhesives, containing 5-95%  $\geq 1$  bisimide I (where Z1 is a C-C double bond-containing divalent radical and Z2 is a  $C\geq 2$  divalent radical) and 5-95% polyhydantoin containing units of II (R = H or C1-6 alkyl, Z1 = arylene, C4-10 alkylene, or O- or S-containing C4-10 alkylene, Z2 = arylene). Thus, 900 g  $CH_2Cl_2$  containing 50 g N,N'-bis(ethoxycarbonylmethyl)-4,4'-diaminodiphenylmethane-MDI copolymer [29497-91-4] 50, 4,4'-bismaleimidodiphenylmethane [13676-54-5] 50, and 2,4-bismaleimidotoluene [6422-83-9] 15 g was impregnated in glass fabric to give a prepreg containing 40% curable composition after removing the solvent.

An assembly containing 10 prepreg layers between aluminum foil was pressed 1 h at 170° and 2 h at 210° at 50 N/cm<sup>2</sup> and postcured 15 h at 250° to give a 1.92-mm laminate with flexural strength 685 and 430 N/mm<sup>2</sup> at 25 and 250°, resp., flexural modulus 22.7 and 20.56 kN/mm<sup>2</sup> at 25 and 250°, resp., and interlaminar shear strength 66.45 and 36.59 N/mm<sup>2</sup> at 25 and 250°, resp.

IT 31780-80-0

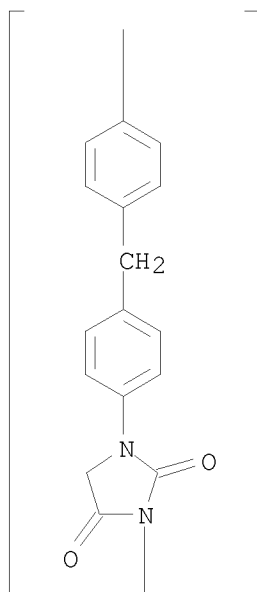
RL: USES (Uses)

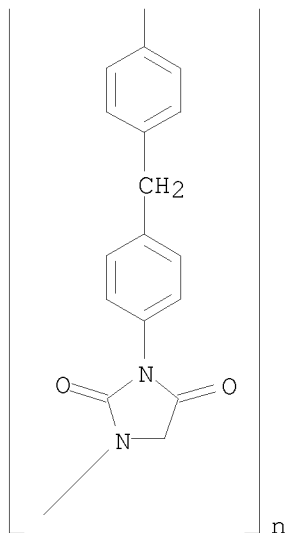
(curable compns. containing bismaleimide and, for fiber-reinforced laminates and adhesives)

RN 31780-80-0 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A





L4 ANSWER 242 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:454177 HCAPLUS

DOCUMENT NUMBER: 103:54177

ORIGINAL REFERENCE NO.: 103:8733a,8736a

TITLE: Reaction of tributyltin  $\omega$ -haloalkoxides with isocyanates or carbodiimides. A possibility of the addition of a tin-oxygen bond across the carbon:oxygen group of isocyanate

AUTHOR(S): Baba, Akio; Kishiki, Hiroshi; Shibata, Ikuya; Matsuda, Haruo

CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan

SOURCE: Organometallics (1985), 4(8), 1329-33

CODEN: ORGND7; ISSN: 0276-7333

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 103:54177

GI For diagram(s), see printed CA Issue.

AB Addition reaction of  $\text{Bu}_3\text{SnO}(\text{CH}_2)_n\text{X}$  ( $n = 2, 3$ ;  $\text{X} = \text{Cl}, \text{Br}, \text{iodo}$ ) with  $\text{RNCO}$  ( $\text{R} = \text{Ph}, \text{p-tolyl}, \text{p-O}_2\text{NC}_6\text{H}_4, \text{p-ClC}_6\text{H}_4, \text{Me}$ ) gave mixts. of iminodioxolanes I and oxazolidinones II. The product yields and ratios were affected drastically by solvent, as well as by  $\text{X}$  and  $\text{R}$ .  $(\text{PhN:})_2\text{C}$  also reacted with  $\text{Bu}_3\text{SnO}(\text{CH}_2)_n\text{X}$  exothermally to give the corresponding heterocyclic compds. Mechanisms were discussed.

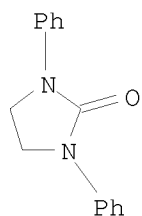
IT 728-24-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

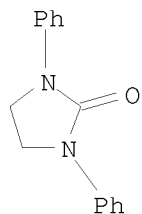
RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)

10501317



L4 ANSWER 243 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1985:453997 HCAPLUS  
DOCUMENT NUMBER: 103:53997  
ORIGINAL REFERENCE NO.: 103:8701a,8704a  
TITLE: Thiono compounds. 5. Preparation and oxidation of some thiono derivatives of imidazoles  
AUTHOR(S): Karkhanis, Dattatraya W.; Field, Lamar  
CORPORATE SOURCE: Dep. Chem., Vanderbilt Univ., Nashville, TN, 37235, USA  
SOURCE: Phosphorus and Sulfur and the Related Elements (1985), 22(1), 49-57  
CODEN: PREEDF; ISSN: 0308-664X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 103:53997  
AB 1,3-Dimethyl-2,3-dihydro-1H-imidazole-2-thione, prepared by a much improved procedure from 1,3-dimethylimidazolium iodide with sulfur and an organic base, was oxidized with H<sub>2</sub>O<sub>2</sub> in MeOH; 3 M proportions of H<sub>2</sub>O<sub>2</sub> were consumed, 1,3-dimethylimidazolium picrate was isolated in 61% yield, and 80% of the expected sulfate ion was found. Oxidation of the analogous imidazolidine, prepared from 1,3-dimethyl-2-imidazolidone with Lawesson's reagent, gave a counterpart picrate (73%) in a similar but slower reaction. 1,3-Diphenyl-2-imidazolidinethione had to be oxidized in DMF-AcOH, with H<sub>2</sub>SO<sub>4</sub> catalysis, and only 1,3-diphenyl-2-imidazolidone (63%) could be isolated. Understanding is added to the behavior in oxidns. of thiono derivs. of imidazoles by these extensions of several earlier studies. Similarities and differences are discussed relative to members of the class studied previously, along with information that improves understanding of the different courses of reactions various members of the class may follow when they are oxidized.  
IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



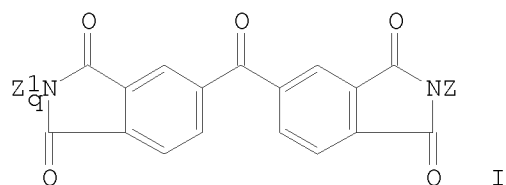
Updated Search

10501317

L4 ANSWER 244 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1985:229479 HCAPLUS  
DOCUMENT NUMBER: 102:229479  
ORIGINAL REFERENCE NO.: 102:35885a,35888a  
TITLE: Photoresist-coated substrates and their use  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59231533	A	19841226	JP 1984-98906	19840518
JP 05011303	B	19930215		
US 4657832	A	19870414	US 1984-608754	19840510
EP 134752	A1	19850320	EP 1984-810231	19840514
EP 134752	B1	19880127		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
EP 315216	A2	19890510	EP 1988-119435	19840514
EP 315216	A3	19910206		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
CA 1256759	A1	19890704	CA 1984-454406	19840516
PRIORITY APPLN. INFO.:			CH 1983-2690	A 19830518
			CH 1983-5569	A 19831012
			CH 1983-5571	A 19831012
			EP 1984-810235	P 19840514

GI



AB A photoresist-coated substrate is obtained by coating a substrate with a polymer containing  $\geq 5$  mol.% of the structural unit I [ $Z, Z'$  = divalent aliphatic group which may contain hetero atoms, aromatic, heterocyclic, or dicyclic rings; aromatic group in which a divalent aromatic ring is joined via an aliphatic group; a substituted aromatic group; or an aromatic group in which 2 adjoining C atoms are replaced by an alkylene group; and  $q = 0, 1$ ]. The above coated substrate is exposed through a photomask then developed to obtain a relief image or protective coating.

IT 96727-45-6  
RL: USES (Uses)  
(photoresist from)

RN 96727-45-6 HCAPLUS

Updated Search

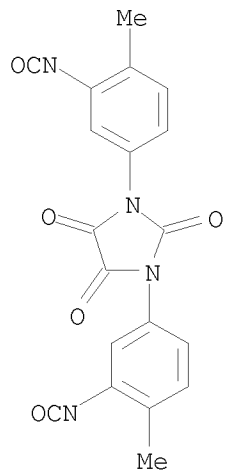
10501317

CN Imidazolidinetrione, bis(3-isocyanato-4-methylphenyl)-, polymer with 5,5'-carbonylbis[1,3-isobenzofurandione] and 2,4-diisocyanato-1-methylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 54518-24-0

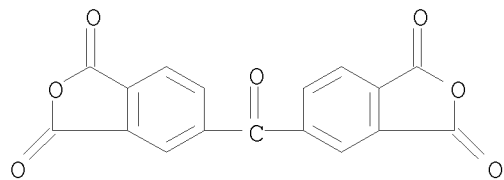
CMF C19 H12 N4 O5



CM 2

CRN 2421-28-5

CMF C17 H6 O7



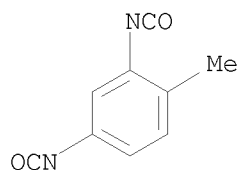
CM 3

CRN 584-84-9

CMF C9 H6 N2 O2

Updated Search

10501317



L4 ANSWER 245 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:112774 HCAPLUS

DOCUMENT NUMBER: 102:112774

ORIGINAL REFERENCE NO.: 102:17699a,17702a

TITLE: Study of some polyfunctional cyclic compounds containing the CO-N-CO system and their phosphonyl derivatives. Hydrogen bonds and IR spectra

AUTHOR(S): Willson, M.; Bouissou, T.; Mathis, R.; Mathis, F.

CORPORATE SOURCE: Lab. Heterocycl. Phosphore Azote, Toulouse, 31062, Fr.

SOURCE: Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy (1984), 40A(9), 835-46  
CODEN: SAMCAS; ISSN: 0584-8539

DOCUMENT TYPE: Journal

LANGUAGE: French

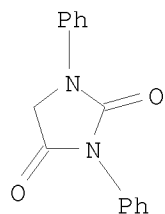
AB The IR of compds. containing a P(O) bond and a heterocyclic ring containing the O:CNC:O system (phthalimides or hydantoins) are examined in solid and solution conditions. The IR of non-phosphorus containing parent compds. are described for comparison. P(O)···C:O dipole interactions, NH···O:C and NH···(O)P H-bonding interactions are observed; the latter are dependent upon the nature of the P-substituents and on the steric requirements of the P moiety and the heterocycle.

IT 3157-03-7

RL: PRP (Properties)  
(IR of)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 246 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:24240 HCAPLUS

DOCUMENT NUMBER: 102:24240

ORIGINAL REFERENCE NO.: 102:3987a,3990a

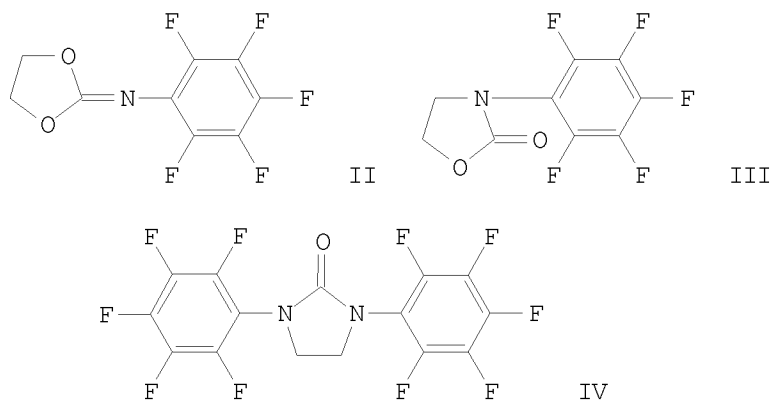
TITLE: Reactions of pentafluorophenylcarbonimidoyl dichloride with O-nucleophilic reagents

AUTHOR(S): Petrova, T. D.; Kolesnikova, I. V.; Savchenko, T. I.;

Updated Search

10501317

Platonov, V. E.  
CORPORATE SOURCE: USSR  
SOURCE: Zhurnal Organicheskoi Khimii (1984), 20(6), 1197-204  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 102:24240  
GI

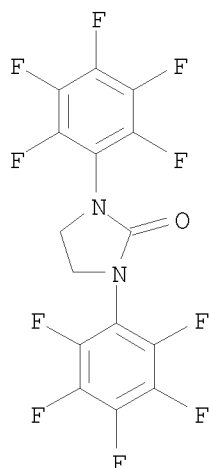


AB C<sub>6</sub>F<sub>5</sub>N:CCl<sub>2</sub> (I) was almost completely inert to H<sub>2</sub>O, even on prolonged reflux; with alcs. it gave C<sub>6</sub>F<sub>5</sub>N:C(OR)Cl and C<sub>6</sub>F<sub>5</sub>N:C(OR)<sub>2</sub> (R = Et, CHF<sub>2</sub>CF<sub>2</sub>CH<sub>2</sub>, C<sub>6</sub>F<sub>5</sub>, Ph). With HOCH<sub>2</sub>CH<sub>2</sub>OH at 80°, I gave the dioxolane II; at 125° it gave C<sub>6</sub>F<sub>5</sub>NHCO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>Cl, and at 135° it gave the oxazolidinone III and the imidazolidinone IV.

IT 94055-13-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 94055-13-7 HCAPLUS  
CN 2-Imidazolidinone, 1,3-bis(pentafluorophenyl)- (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 247 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:572556 HCAPLUS

DOCUMENT NUMBER: 101:172556

ORIGINAL REFERENCE NO.: 101:26109a,26112a

TITLE: New heterocycles for ultrafiltration membranes

AUTHOR(S): Perrey, H.; Hildenbrand, K.

CORPORATE SOURCE: Bayer A.-G., Fed. Rep. Ger.

SOURCE: Desalination (1984), 51(1), 45-54

CODEN: DSLNAH; ISSN: 0011-9164

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The manufacture of special polyamides and polyhydantoin is described, and their processing into membranes and properties and use of the membranes are discussed. Polyhydantoins are hydrophilic and distinguished by stability to heat, pH, and oxidation

IT 36247-75-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(ultrafiltration membranes, preparation and properties of)

RN 36247-75-3 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 248 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:561014 HCAPLUS

DOCUMENT NUMBER: 101:161014

ORIGINAL REFERENCE NO.: 101:24219a,24222a

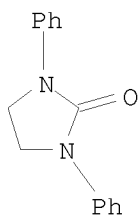
Updated Search



10501317

TITLE: Chemiluminescent composition  
PATENT ASSIGNEE(S): Katholieke Universiteit Faculteit der Wiskunde en  
Natuurwetenschappen te Nijmegen, Neth.  
SOURCE: Neth. Appl., 10 pp.  
CODEN: NAXXAN  
DOCUMENT TYPE: Patent  
LANGUAGE: Dutch  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

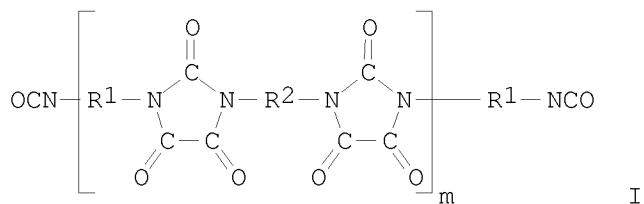
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
NL 8204284	A	19840601	NL 1982-4284	19821104
PRIORITY APPLN. INFO.:			NL 1982-4284	19821104
AB	When $\Delta 2,2'$ -biimidazolidine is substituted in the 1,1', 3 and 3' positions with aryl or substituted aryl groups stable crystalline compds. are formed. These compds. are suitable for chemiluminescence. Suitable groups are: Ph o-, m-, p-MeC <sub>6</sub> H <sub>4</sub> ; o-, m-, p-ClC <sub>6</sub> H <sub>4</sub> . The reaction takes place in a solvent in the presence of a fluorescent material. The preferred solvent is CHCl <sub>3</sub> , but CH <sub>2</sub> Cl <sub>2</sub> or CHCl <sub>2</sub> CH <sub>2</sub> Cl and CH <sub>3</sub> COCH <sub>3</sub> are also suitable. The fluorescent material should have less than 380 kJ/mol in the S <sub>1</sub> state. 9,10-Dibromoanthracene, anthracene, 9, 10-diphenylanthracene, rubrene and pyrene are suitable.			
IT	728-24-5 RL: PRP (Properties) (chemiluminescent compns. containing)			
RN	728-24-5 HCAPLUS			
CN	2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)			



L4 ANSWER 249 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1984:552431 HCAPLUS  
DOCUMENT NUMBER: 101:152431  
ORIGINAL REFERENCE NO.: 101:23101a,23104a  
TITLE: Poly(urethane-parabanic acid)s  
AUTHOR(S): Caraculacu, Adrian A.; Caraculacu, Georgeta  
CORPORATE SOURCE: Inst. Macromol. Chem. "P. Poni", Iasi, 6600, Rom.  
SOURCE: Makromolekulare Chemie (1984), 185(6), 1079-93  
CODEN: MACEAK; ISSN: 0025-116X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

Updated Search

10501317



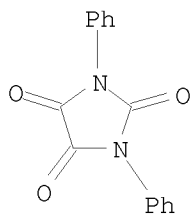
AB The oligomers I were prepared by treating the corresponding NCO-terminated oligoureas with oxalyl chloride (II) [79-37-8]. In the reaction of II with model diureas in C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub> at room temperature, the corresponding parabanic acids and diurea dihydrochlorides were formed. The solns. of the latter were elec. conductive. IR spectra confirm their structure. The reaction of I with diols gave the title block polymers. The exptl. conditions and the effect of polymer structure on properties are discussed.

IT 6488-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 250 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:551789 HCAPLUS

DOCUMENT NUMBER: 101:151789

ORIGINAL REFERENCE NO.: 101:22975a,22978a

TITLE: Reaction of oxalyl chloride and alkyloxalyl chlorides with isocyanates and isothiocyanates

AUTHOR(S): Richter, R.; Stuber, F. A.; Tucker, B.

CORPORATE SOURCE: D. S. Gilmore Res. Lab., Upjohn Co., North Haven, CT, 06473, USA

SOURCE: Journal of Organic Chemistry (1984), 49(20), 3675-81  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

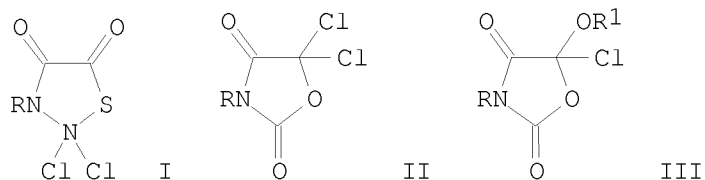
LANGUAGE: English

OTHER SOURCE(S): CASREACT 101:151789

GI

Updated Search

10501317



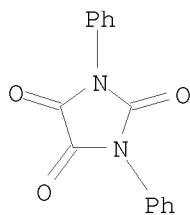
AB    Alkyl and aryl isothiocyanates reacted with oxalyl chloride on both double bonds of the heterocumulene to yield 2,2-dichlorothiazolidine-4,5-diones I (R = C1-4 alkyl, cyclohexyl, PhCH<sub>2</sub>, Ph, anisyl). 3-Substituted 5,5-dichlorooxazolidine-2,4-diones II (R = C1-4 alkyl, cyclohexyl, PhCH<sub>2</sub>, methoxy- or chlorobenzyl, Ph, tolyl, anisyl) and 5-chloro-5-alkoxy compds. III (R = CHMe<sub>2</sub>, Ph; R<sub>1</sub> = Me, Et) were obtained from organic isocyanates and ClCOCOC1 and ClCOCOR<sub>1</sub>, resp.

IT    6488-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN    6488-59-1    HCAPLUS

CN    Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI)    (CA INDEX NAME)



L4    ANSWER 251 OF 527    HCAPLUS    COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:            1984:491545    HCAPLUS

DOCUMENT NUMBER:            101:91545

ORIGINAL REFERENCE NO.:    101:14053a,14056a

TITLE:                        Synthesis and properties of polyiminohydantoins and polyparabanic acids

AUTHOR(S):                    Yanshevskii, A. V.; Flerova, A. N.; Teleshov, E. N.; Pravednikov, A. N.

CORPORATE SOURCE:            Fiz.-Khim. Inst. im. Karpova, Moscow, USSR

SOURCE:                      Vysokomolekulyarnye Soedineniya, Seriya A (1984), 26(6), 1318-21

CODEN: VYSAAF; ISSN: 0507-5475

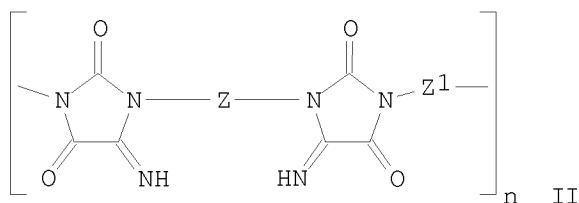
DOCUMENT TYPE:                Journal

LANGUAGE:                      Russian

GI

Updated Search

10501317



AB Polymerization of (NCCOHH)2Z (I, Z = p-C6H4CH2C6H4-p, p-C6H4OC6H4-p, m-C6H4, p-C6H4) with MDI in amide solvents in the presence of tertiary amines or organotin compds. gave poly(iminohydantoins (II, Z1 = p-C6H4CH2C6H4-p), which were hydrolyzed to the corresponding poly(parabanic acids). The polymerization exhibited the same features as were observed for the reactions of

isocyanates with compds. having a replaceable H. The II were obtained as high-mol.-weight, linear polymers during synthesis at stoichiometric monomer ratio and -10 to 0° with addition of a solution of MDI to a solution of I and catalyst. The linear II were soluble in polar, aprotic solvents, formed elastic films, and had softening temperature 240-250° and good thermal stability. The I could be used to give II during reaction molding.

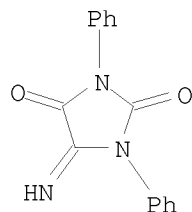
IT 10319-52-5

RL: USES (Uses)

(model compound, for poly(iminohydantoin), preparation of)

RN 10319-52-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-imino-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 252 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:191785 HCAPLUS

DOCUMENT NUMBER: 100:191785

ORIGINAL REFERENCE NO.: 100:29159a,29162a

TITLE: 1,2-Disubstituted 5-carbethoxyhydantoins and their spectra

AUTHOR(S): Prelicz, Danuta; Czuba, Wladyslaw; Sedzik-Hibner, Dorota; Arct, Barbara; Lorenz, Magdalena

CORPORATE SOURCE: Dep. Gen. Chem., Sch. Med., Wroclaw, 50345, Pol.

SOURCE: Polish Journal of Chemistry (1983), Volume Date 1982, 56(7-8-9), 1049-62

CODEN: PJCHDQ; ISSN: 0137-5083

DOCUMENT TYPE: Journal

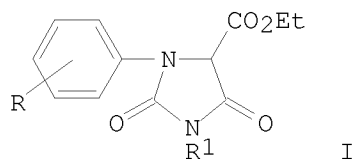
LANGUAGE: English

OTHER SOURCE(S): CASREACT 100:191785

GI

Updated Search

10501317

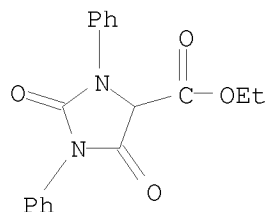


AB The title compds. I (R = H, 3-Me, 4-Me, 3-Cl, 4-Cl; R1 = Me, Et, Ph, m-ClC6H4, p-ClC6H4, 3,4-Cl2C6H3) were prepared by cyclization of RC6H4NHCH(CO2Et)2 with R1NCO. The NMR and mass spectra of I were reported and discussed.

IT 56598-97-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and NMR and mass spectra of)

RN 56598-97-1 HCAPLUS

CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA INDEX NAME)



L4 ANSWER 253 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:191047 HCAPLUS

DOCUMENT NUMBER: 100:191047

ORIGINAL REFERENCE NO.: 100:29035a,29038a

TITLE: Conjugated Schiff bases. 15. Substituent effect on the cycloaddition of heterocumulenes to some 1-oxa-4-azabutadienes

AUTHOR(S): Moskal, Janusz; Moskal, Alexandra; Milart, Piotr

CORPORATE SOURCE: Dep. Org. Chem., Univ. Sch. Kielce, Kielce, PL-25020, Pol.

SOURCE: Monatshefte fuer Chemie (1984), 115(2), 187-95  
CODEN: MOCMB7; ISSN: 0026-9247

DOCUMENT TYPE: Journal

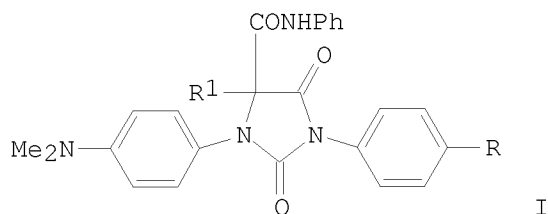
LANGUAGE: English

OTHER SOURCE(S): CASREACT 100:191047

GI

Updated Search

10501317



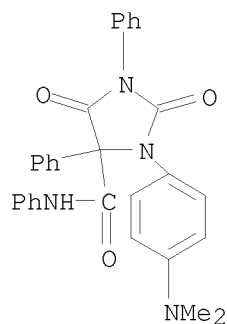
AB The substituent effect on the cycloaddn. of p-RC<sub>6</sub>H<sub>4</sub>NCO (R = H, Me, MeO, Cl, O<sub>2</sub>N) to some R<sub>1</sub>COC(CONHPh):NC<sub>6</sub>H<sub>4</sub>NMe<sub>2</sub>-p (R<sub>1</sub> = Ph, Me) to give imidazolidinediones (I) was studied. The electron-withdrawing groups located in the aryl isocyanate ring distinctly increased the rate of the cycloaddn. The importance of isocyanate nitrogen unshared electrons was considered. Rate consts. and activation parameters were discussed with respect to the mechanism.

IT 72742-99-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 72742-99-5 HCAPLUS

CN 4-Imidazolidinecarboxamide, 3-[4-(dimethylamino)phenyl]-2,5-dioxo-N,1,4-triphenyl- (CA INDEX NAME)



L4 ANSWER 254 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:156544 HCAPLUS

DOCUMENT NUMBER: 100:156544

ORIGINAL REFERENCE NO.: 100:23851a,23854a

TITLE: Dication ethers and related compounds. 1. Dication chalcogenides and dichalcogenides

AUTHOR(S): Maas, Gerhard; Singer, Berndt

CORPORATE SOURCE: Fachber. Chem., Univ. Kaiserslautern, Kaiserslautern, D-6750, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1983), 116(11), 3659-74

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 100:156544

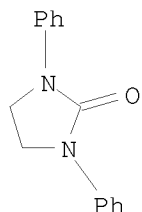
AB Thiones RR1CS (RR1 = PhCH<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NCH<sub>2</sub>Ph, 2-MeNC<sub>6</sub>H<sub>4</sub>S, SCH<sub>2</sub>CH<sub>2</sub>S, SCMe:CMes, SCMe:CHSOCH:CHO) or selones R<sub>2</sub>R<sub>3</sub>CSe (R<sub>2</sub>R<sub>3</sub> = PhNCH<sub>2</sub>CH<sub>2</sub>NPh,

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PhCH<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NCH<sub>2</sub>Ph, 2-EtNC<sub>6</sub>H<sub>2</sub>S) with (CR<sub>3</sub>SO<sub>2</sub>)<sub>2</sub>O led to dication disulfides RR<sub>1</sub>C+SSC+RR<sub>1</sub>.2CF<sub>3</sub>SO<sub>3</sub><sup>-</sup> or diselenides R<sub>2</sub>R<sub>3</sub>C+SeSeC+R<sub>2</sub>R<sub>3</sub>.2CF<sub>3</sub>SO<sub>3</sub><sup>-</sup>, resp. No dication sulfides or selenides were obtained. They were accessible by the reaction of dication ethers with RR<sub>1</sub>CS or R<sub>2</sub>R<sub>3</sub>CSe.

IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 255 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1984:120950 HCAPLUS  
DOCUMENT NUMBER: 100:120950  
ORIGINAL REFERENCE NO.: 100:18405a,18408a  
TITLE: Syntheses of 2-pyrazolin-5-ones having  
nitrogen-containing cyclic imido substituent on the  
3-position  
AUTHOR(S): Nakatani, Mamoru; Yamashita, Kiyoshi; Tosa, Senji  
CORPORATE SOURCE: Kyoto Fact., Mitsubishi Pap. Mill Ltd., Kyoto, Japan  
SOURCE: Yakugaku Zasshi (1983), 103(9), 922-8  
CODEN: YKKZAJ; ISSN: 0031-6903  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
OTHER SOURCE(S): CASREACT 100:120950  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB 1-Aryl-2-pyrazolin-5-ones and 3-anilino-1-(2,4,6-trichlorophenyl)pyrazolones having nitrogen-containing five or six membered cyclic imido substituent at each 3-position of pyrazolone and aniline moiety, e.g. I, were prepared by the reaction of 3-phenoxy-carbonylaminopyrazolones II (R = H, Cl; R<sub>1</sub> = Ph, Et) and 3-(3-phenoxy-carbonylamino)anilinopyrazolones III (R<sub>2</sub> = Cl, MeO, Me) with amino acid esters. Treatment of II and III with Et glycinate gave 3-(2,4-dioxoimidazolidin-3-yl)pyrazolones and anilinopyrazolones. When II and III were treated with Et β-alaninate, the products were not perhydropyrimidinediones but substituted ureas. Hydrolysis of the product derived from II (R = H, R<sub>1</sub> = Ph) and Et N-benzyl-β-alaninate gave the corresponding acid, which underwent cyclization with dicyclohexylcarbodiimide to give 3-(2,4-dioxoperhydropyrimidin-3-

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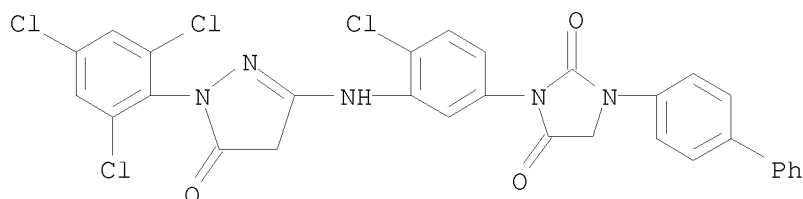
yl)pyrazolone. A condensation product obtained by the reaction of III (R2 = H) with Et N-benzyl- $\beta$ -alaninate was easily cyclized with EtONa in EtOH to give imido substituted anilinopyrazolone IV.

IT 69275-90-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 69275-90-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1-[1,1'-biphenyl]-4-yl-3-[4-chloro-3-[[4,5-dihydro-5-oxo-1-(2,4,6-trichlorophenyl)-1H-pyrazol-3-yl]amino]phenyl]- (CA INDEX NAME)



L4 ANSWER 256 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:86685 HCAPLUS

DOCUMENT NUMBER: 100:86685

ORIGINAL REFERENCE NO.: 100:13151a,13154a

TITLE: Crosslinkable poly(parabanic acid) compositions

PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 58129052	A	19830801	JP 1983-9998	19830126
JP 04022942	B	19920420		
CA 1211886	A1	19860923	CA 1983-420159	19830125

PRIORITY APPLN. INFO.: US 1982-342951 A 19820126

AB The title compns. contain a sulfonic acid or its ester or salt. Thus, a solution from poly(2,4,5-trioxo-1,3-imidazolidinediyl-1,4-phenylenemethylene-1,4-phenylene) [37725-18-1] 600, Zelec release 0.24, Me p-toluenesulfonate (I) [80-48-8] 3.0, and DMF 2400 g was cast and heated at 260° for 1 h to give a film insol. in DMF, while a control not containing I was soluble

IT 37725-18-1

RL: USES (Uses)

(crosslinking catalysts for, sulfonic acid derivs. as)

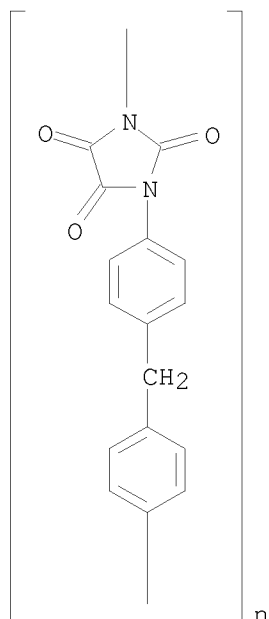
RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

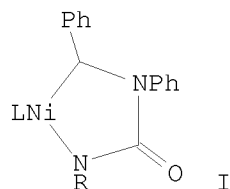
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L4 ANSWER 257 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1984:34676 HCAPLUS  
DOCUMENT NUMBER: 100:34676  
ORIGINAL REFERENCE NO.: 100:5387a,5390a  
TITLE: Diazanickelacyclopentanones from nickel(0), imines and isocyanates  
AUTHOR(S): Hoberg, Heinz; Suemmermann, Klaus  
CORPORATE SOURCE: Max-Planck-Inst. Kohlenforsch., Muelheim, D-4330, Fed. Rep. Ger.  
SOURCE: Journal of Organometallic Chemistry (1983), 253(3), 383-9  
CODEN: JORCAI; ISSN: 0022-328X  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI

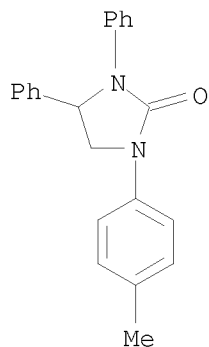


AB RNCO (R = Me, Bu, CMe<sub>3</sub>, Ph, 4-tolyl, cyclohexyl) coupled oxidatively with PhCH:NPh at Ni(0) in the presence of L (L = Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>, 2,2'-bipyridine) to form diazanickelacyclopentanones I. The structure of I was determined by spectroscopic and chemical methods. Hydrolysis of I (L =

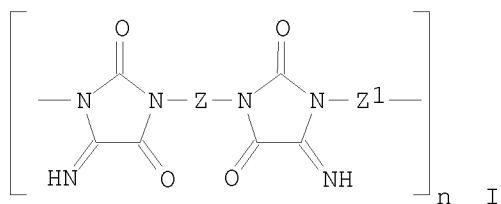
Updated Search

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Me2NCH2CH2NMe2) gave 53-90% PhCH2NPhCONHR.  
IT 88372-74-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 88372-74-1 HCAPLUS  
CN 2-Imidazolidinone, 1-(4-methylphenyl)-3,4-diphenyl- (CA INDEX NAME)



L4 ANSWER 258 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1984:7264 HCAPLUS  
DOCUMENT NUMBER: 100:7264  
ORIGINAL REFERENCE NO.: 100:1263a,1266a  
TITLE: Synthesis of the polyiminohydantoins by the  
polyaddition of diisocyanates to bis(cyanoformamides)  
AUTHOR(S): Yanshevskii, A. V.; Flerova, A. N.; Teleshov, E. N.;  
Pravednikov, A. N.  
CORPORATE SOURCE: Nauchno-Issled. Fiz.-Khim. Inst. im. Karpova, Moscow,  
USSR  
SOURCE: Doklady Akademii Nauk SSSR (1983), 271(1), 133-7  
[Phys. Chem.]  
CODEN: DANKAS; ISSN: 0002-3264  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
GI



AB Six poly(iminohydantoins) (I; Z = 4,4'-C6H4CH2C6H4, 4,4'-C6H4OC6H4, 1,3-C6H4, 1,4-C6H4; Z1 = 4,4'-C6H4CH2C6H4, 4,4'-C6H4OC6H4, MeC6H3) was prepared by copolymn. of NCCONHZNHCOCN (II) with OCNZ'NCO in N-methyl-2-pyrrolidinone at -15 to 0° in the presence of tertiary amines as catalysts. The reaction apparently proceeded via the

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intermediate  $[-N(COCN)ZN(COCN)CONHZ'NHCO-]_n$ . I were soluble in amide solvents. Films cast from these solns. had good mech. and dielec. properties. The 10% weight loss in heating I in air occurred at 250-310°. The copolymn. kinetics was studied on a model reaction of PhNCO [103-71-9] with PhNHCOCN [6784-22-1] and of 4,4'-diphenylmethane diisocyanate [101-68-8] with 4,4'-bis(cyanoformamido)diphenyl ether [58000-37-6]. The reactions were of the 2nd order and their activation energies were 33-52 kJ/mol. II were prepared by dehydration of (HON:CHCONH)2Z with SOCl2.

IT 37900-22-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and properties of)

RN 37900-22-4 HCAPLUS

CN Poly[(4-imino-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(5-imino-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

L4 ANSWER 259 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:6413 HCAPLUS

DOCUMENT NUMBER: 100:6413

ORIGINAL REFERENCE NO.: 100:1106h,1107a

TITLE: Synthesis and some reactions of 2-imino-2,5-dihydro-1,3,4-thiadiazoles. Formation of  $\beta$ -lactams

AUTHOR(S): Yamamoto, Iwao; Abe, Ikuo; Nozawa, Muneharu; Kotani, Mitsuhiro; Motoyoshiya, Jiro; Gotoh, Haruo; Matsuzaki, Kei

CORPORATE SOURCE: Fac. Text. Sci. Technol., Shinshu Univ., Nagano, 386, Japan

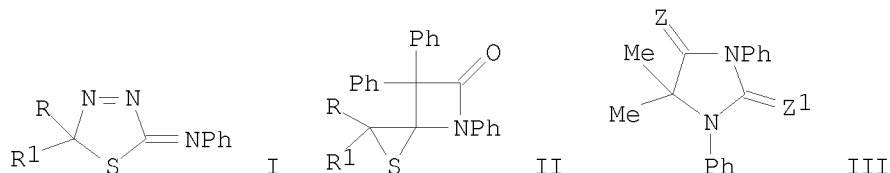
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1983), (10), 2297-301  
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 100:6413

GI



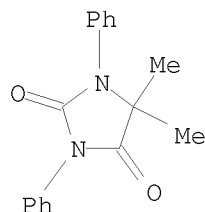
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AB Oxidation of RCR1:NNHC(S)NHPH [R = Me, R1 = Me, Et; RR1 = (CH2)5] in C6H6-H2O containing FeCl3 at room temperature for 24-68 h gave 85-90% thiadiazoles I (R, R1 as before), which underwent cycloaddn.-rearrangement with Ph2C:CO to give the corresponding spiro- $\beta$ -lactams II in 71-100% yield. Reaction of I (R = R1 = Me) with PhNCO in refluxing C6H6 gave the thiohydantoin III (Z = O, Z1 = S; Z = S, Z1 = O) in 42 and 22% yield, resp.

IT 87976-13-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 87976-13-4 HCAPLUS

CN 2,4-Imidazolidinedione, 5,5-dimethyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 260 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1984:6391 HCAPLUS

DOCUMENT NUMBER: 100:6391

ORIGINAL REFERENCE NO.: 100:1103a,1106a

TITLE: Derivatives of 5-carbethoxyhydantoin

AUTHOR(S): Arct, B.; Lorenz, M.; Prelicz, D.; Sedzik-Hibner, D.

CORPORATE SOURCE: Dep. Gen. Chem., Med. Acad. Wroclaw, Wroclaw, Pol.

SOURCE: Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes (1983), B18(4-5), 569-77

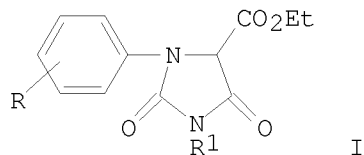
CODEN: JPFCD2; ISSN: 0360-1234

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 100:6391

GI

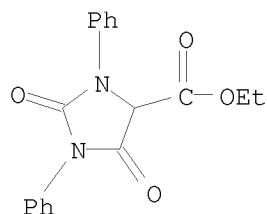


AB 5-Carbethoxyhydantoin I (R = H, 3-Me, 3-Cl, 4-Cl, 4-Me; R1 = Ph, p-ClC6H4, m-ClC6H4, 3,4-Cl2C6H3, Me, Et) were prepared as pesticides (no data) by cyclization of RC6H4NHCHC(CO2Et)2 with R-NCO.

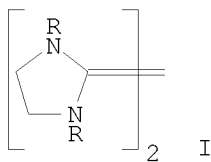
Updated Search

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IT 56598-97-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 56598-97-1 HCAPLUS  
CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA  
INDEX NAME)



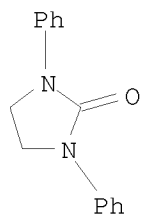
L4 ANSWER 261 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:557657 HCAPLUS  
DOCUMENT NUMBER: 99:157657  
ORIGINAL REFERENCE NO.: 99:24161a,24164a  
TITLE: Controlled chemiluminescence during the oxidation of  
tetraaryl- $\Delta$ 2,2'-biimidazolidines by triplet  
oxygen in the presence of fluorescers  
AUTHOR(S): Roeterdink, F.; Scheeren, J. W.; Laarhoven, W. H.  
CORPORATE SOURCE: Dep. Org. Chem., Univ. Nijmegen, Nijmegen, 6525 ED,  
Neth.  
SOURCE: Tetrahedron Letters (1983), 24(22), 2307-10  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB The oxidation of tetraarylbiimidazolidines I (R = Ph, tolyl, ClC<sub>6</sub>H<sub>4</sub>,  
p-anisyl) in presence of fluorescers (1-chloro- or 1-methylnaphthalene)  
resulted in chemiluminescence, the lifetime of which increased with  
decreasing electron-donating ability of the Ph substituents (oxidation rates  
decreased).  
IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)

Updated Search

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L4 ANSWER 262 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:540633 HCAPLUS  
DOCUMENT NUMBER: 99:140633  
ORIGINAL REFERENCE NO.: 99:21621a,21624a  
TITLE: Hydantoin esters  
INVENTOR(S): Zecher, Wilfried; Merten, Rudolf  
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
SOURCE: Ger. Offen., 20 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 3200704	A1	19830721	DE 1982-3200704	19820113
EP 86278	A1	19830824	EP 1982-112106	19821230
EP 86278	B1	19860226		
R: AT, DE, FR, GB, IT				
AT 18215	T	19860315	AT 1982-112106	19821230
JP 58121282	A	19830719	JP 1983-1268	19830110
PRIORITY APPLN. INFO.:			DE 1982-3200704	A 19820113
			EP 1982-112106	A 19821230

OTHER SOURCE(S): MARPAT 99:140633

AB Monomeric and polymeric hydantoins are prepared by the addition of isocyanates to H<sub>2</sub>NCOCH:CHCO<sub>2</sub>H ester derivs. Thus, stirring di-Me N,N'-(methylenedi-p-phenylene)difumaramate 105.5, MDI 6.5, triethylenediamine 0.5, and cresol 340 g 5 h at 180° gave a 33% polyhydantoin [87322-98-3] solution with viscosity 7500 mPa-s at 25°.

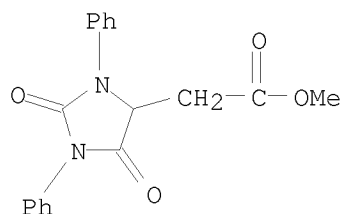
IT 67443-80-5P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manufacture of, from phenylfumaramate esters and Ph isocyanate)

RN 67443-80-5 HCAPLUS

CN 4-Imidazolidineacetic acid, 2,5-dioxo-1,3-diphenyl-, methyl ester (CA INDEX NAME)

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L4 ANSWER 263 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1983:454308 HCAPLUS  
 DOCUMENT NUMBER: 99:54308  
 ORIGINAL REFERENCE NO.: 99:8495a,8498a  
 TITLE: Hydantoins and thiohydantoins  
 INVENTOR(S): Schulte, Bernhard; Jakob, Wolfgang; Duenwald, Willi;  
 Meyer, Karl Heinrich  
 PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 32 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3144700	A1	19830519	DE 1981-3144700	19811111
US 4465840	A	19840814	US 1982-438054	19821101
EP 79021	A2	19830518	EP 1982-110067	19821102
EP 79021	A3	19840425		
EP 79021	B1	19860305		
R: AT, DE, FR, GB, IT				
AT 18398	T	19860315	AT 1982-110067	19821102
JP 58090562	A	19830530	JP 1982-196130	19821110
PRIORITY APPLN. INFO.:				
			DE 1981-3144700	A 19811111
			EP 1982-110067	A 19821102

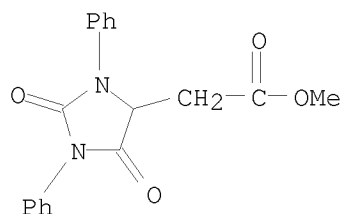
AB (Thio)hydantoin ring-containing compds. are prepared by treating carbodiimides with RO<sub>2</sub>CCH<sub>2</sub>CHR<sub>1</sub>CO<sub>2</sub>R (R=alkyl, cycloalkyl, benzyl; R<sub>1</sub>=OH, SH) at 20-250°. The polymeric derivs. give heat-resistant wire enamels and stoving lacquers. Thus, a polycarbodiimide from 4,4'-diisocyanatodiphenylmethane was treated in solution with MeO<sub>2</sub>CCH<sub>2</sub>CH(OH)CO<sub>2</sub>Me at 100-105°, then heated to 185°, to give a polyhydantoin solution with solids content 26.8%. The solution was applied to a Cu wire and heated to 400° to give a coating with softening temperature >468°, heat-shock value 220-260°, and dielec. strength .apprx.6 kV.

IT 67443-80-5P  
 RL: PREP (Preparation)  
 (preparation of, from diphenylcarbodiimide)

RN 67443-80-5 HCAPLUS

CN 4-Imidazolidineacetic acid, 2,5-dioxo-1,3-diphenyl-, methyl ester (CA INDEX NAME)

10501317



L4 ANSWER 264 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:454307 HCAPLUS  
DOCUMENT NUMBER: 99:54307  
ORIGINAL REFERENCE NO.: 99:8495a,8498a  
TITLE: Hydantoins  
INVENTOR(S): Schulte, Bernhard; Jakob, Wolfgang; Duenwald, Willi;  
Meyer, Karl Heinrich  
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
SOURCE: Ger. Offen., 32 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3144701	A1	19830519	DE 1981-3144701	19811111
US 4448942	A	19840515	US 1982-438270	19821101
EP 80079	A1	19830601	EP 1982-110068	19821102
EP 80079	B1	19860625		
R: AT, DE, FR, GB, IT				
AT 20527	T	19860715	AT 1982-110068	19821102
JP 58090561	A	19830530	JP 1982-196129	19821110
JP 02044308	B	19901003		
PRIORITY APPLN. INFO.:			DE 1981-3144697	A 19811111
			DE 1981-3144701	A 19811111
			EP 1982-110068	A 19821102

OTHER SOURCE(S): MARPAT 99:54307

AB Hydantoin-ring-containing compds. are prepared by treating a carbodiimide or polycarbodiimide with HO<sub>2</sub>CCR:CR<sub>1</sub>R<sub>2</sub> (R, R<sub>1</sub> = H, lower alkyl; R<sub>2</sub> = CN, CHO, COR<sub>3</sub>; R<sub>3</sub> = alkyl, aryl, alkoxy, arylalkoxy, dialkylamino) at 20-250°. The polyhydantoins provide heat-resistant wire enamels and stoving lacquers. Thus, a polycarbodiimide prepared from 4,4'-diisocyanatodiphenylmethane was treated with mono-Me maleate at 180° in PhOH to give a polyhydantoin solution with solids content 31.3%. The solution was applied to a Cu wire and heated to 400° to give a coating with softening temperature ≥350°, heat-shock value ≥260°, pencil hardness ≥4H, and dielec. strength ≥7 kV.

IT 79786-58-6P

RL: PREP (Preparation)

(preparation of, from diphenylcarbodiimide)

RN 79786-58-6 HCAPLUS

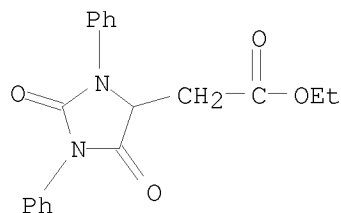
CN 4-Imidazolidineacetic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA

Updated Search



10501317

INDEX NAME)



L4 ANSWER 265 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:454306 HCAPLUS  
DOCUMENT NUMBER: 99:54306  
ORIGINAL REFERENCE NO.: 99:8495a,8498a  
TITLE: Hydantoins  
INVENTOR(S): Schulte, Bernhard; Jakob, Wolfgang; Duenwald, Willi;  
Meyer, Karl Heinrich  
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
SOURCE: Ger. Offen., 32 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3144698	A1	19830519	DE 1981-3144698	19811111
US 4465839	A	19840814	US 1982-437968	19821101
EP 79020	A2	19830518	EP 1982-110065	19821102
EP 79020	A3	19840425		
EP 79020	B1	19860205		
R: AT, DE, FR, GB, IT				
AT 17852	T	19860215	AT 1982-110065	19821102
JP 58090560	A	19830530	JP 1982-196131	19821110
JP 02046033	B	19901012		
PRIORITY APPLN. INFO.:			DE 1981-3144697	A 19811111
			DE 1981-3144698	A 19811111
			EP 1982-110065	A 19821102

OTHER SOURCE(S): MARPAT 99:54306

AB Hydantoin ring-containing compds. are prepared by treating a carbodiimide or polycarbodiimide with succinic anhydride derivs. or maleic anhydride (I) in the presence of phenols at 20-250°. The polyhydantoins give heat-resistant wire enamels and stoving lacquers. Thus, a polycarbodiimide [25686-28-6] prepared from 4,4'-diisocyanatodiphenylmethane was treated with I and PhOH at 80-85° and heated to 180-185° to obtain a polyhydantoin. A 22% solution of the polyhydantoin in 1:1 cresol-xylene was applied to a Cu wire and heated to 400° to give a coating with softening temperature >470°, heat-shock value ≥260°, pencil hardness ≥5H, and dielec. strength ≥8 kV.

IT 86578-27-0P

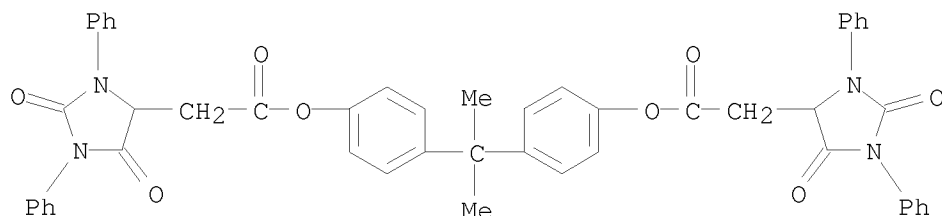
Updated Search

10501317

RL: PREP (Preparation)  
(preparation of, from diphenylcarbodiimide)

RN 86578-27-0 HCAPLUS

CN 4-Imidazolidineacetic acid, 2,5-dioxo-1,3-diphenyl-, (1-methylethylidene)di-4,1-phenylene ester (9CI) (CA INDEX NAME)



L4 ANSWER 266 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:453668 HCAPLUS

DOCUMENT NUMBER: 99:53668

ORIGINAL REFERENCE NO.: 99:8381a,8384a

TITLE: Extremely reactive carbon-carbon double bonds. II.  
1,3-Diphenyl-2-imidazolidineselenone from  
1,1',3,3'-tetraphenyl-Δ2,2'-biimidazoline and  
selenium

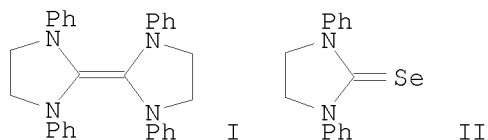
AUTHOR(S): Schoenberg, Alexander; Singer, Erich; Stephan, Werner  
CORPORATE SOURCE: Tech. Univ. Berlin, Berlin, D-1000/12, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1983), 116(6), 2068-73  
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 99:53668

GI



AB 1,1',3,3'-Tetraphenyl-Δ2,2'-biimidazolidine (I) reacts with Se to  
give 1,3-diphenyl-2-imidazolidineselenone (II). The actions of powdered  
Cu, EtI, PhSH, PhBr, PhNCO and LiAlH4 on II are described. Some of the  
unusual mechanisms of these reactions are discussed.

IT 86453-48-7P

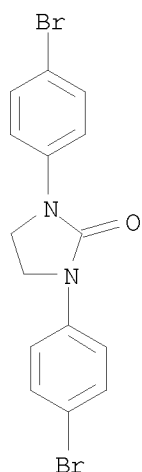
RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, in diphenylimidazolidineselenone bromination)

RN 86453-48-7 HCAPLUS

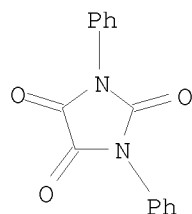
CN 2-Imidazolidinone, 1,3-bis(4-bromophenyl)- (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 267 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:198843 HCAPLUS  
DOCUMENT NUMBER: 98:198843  
ORIGINAL REFERENCE NO.: 98:30255a,30258a  
TITLE: The heterocyclization of several reactive polymers.  
Poly(parabanic acids)  
AUTHOR(S): Caraculacu, Georgeta; Scortanu, Elena; Caraculacu, A.  
CORPORATE SOURCE: Inst. Macromol. Chem. "P. Poni", Jassy, 6600, Rom.  
SOURCE: European Polymer Journal (1983), 19(2), 143-6  
CODEN: EUPJAG; ISSN: 0014-3057  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Poly(parabanic acids) were prepared by intermol. reaction between the urea group of polyureas and (COCl)<sub>2</sub> [79-37-8] in the presence of pyridine as catalyst. All the polyureas and poly(parabanic acids) were characterized by thermogravimetric, IR, and elemental anal.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and characterization of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



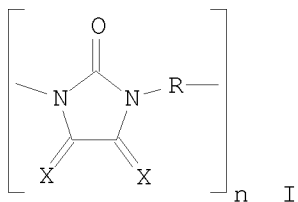
L4 ANSWER 268 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

Updated Search

10501317

ACCESSION NUMBER: 1983:180527 HCAPLUS  
DOCUMENT NUMBER: 98:180527  
ORIGINAL REFERENCE NO.: 98:27459a,27462a  
TITLE: Polymers characterized by 1,3-imidazolidine-1,3-diyl  
rings plasticized with phosphate esters  
INVENTOR(S): Patton, Tad LeMarre  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: Eur. Pat. Appl., 18 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 71379	A1	19830209	EP 1982-303770	19820719
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
US 4383067	A	19830510	US 1981-288244	19810729
CA 1203341	A1	19860415	CA 1982-407477	19820716
JP 58027747	A	19830218	JP 1982-131349	19820729
PRIORITY APPLN. INFO.:			US 1981-288244	A 19810729
OTHER SOURCE(S):	MARPAT 98:180527			
GI				



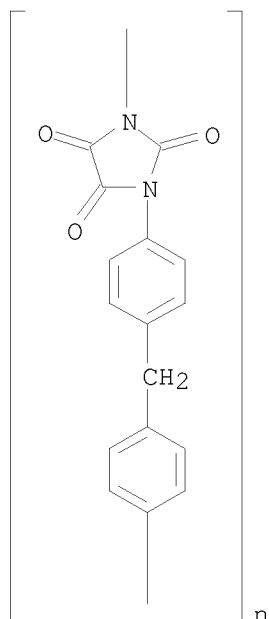
AB Parabanic acid polymers (I, X = O, NH; R = divalent aromatic radical) are plasticized with triaryl or trialkyl phosphates to aid processing at sufficiently low temps. to avoid thermal degradation. Thus, a dry blend of 50 g tricresyl phosphate [1330-78-5] in 200 g poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] was extruded at screw speed 25 rpm at 300° in the 1st zone, 280° in the 2nd zone, and die temperature 280°. The extrudate was milled to a fine powder which was soluble in DMF and had inherent viscosity 0.94, slightly less than its initial 1.1.

IT 37725-18-1  
RL: USES (Uses)  
(plasticizers for, phosphate esters as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 269 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:180494 HCAPLUS  
DOCUMENT NUMBER: 98:180494  
ORIGINAL REFERENCE NO.: 98:27451a,27454a  
TITLE: Blends of poly(parabanic acids) with other polymers  
INVENTOR(S): Patton, Tad LeMarre  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: Eur. Pat. Appl., 18 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 68695	A1	19830105	EP 1982-303046	19820611
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 58013656	A	19830126	JP 1982-108645	19820625
JP 03072668	B	19911119		
JP 03115356	A	19910516	JP 1990-207963	19900806
JP 04028750	B	19920515		

PRIORITY APPLN. INFO.: US 1981-277356 A 19810625  
AB Homogeneous blends of poly(parabanic acids) with aromatic poly(ether sulfones) or polyesters are obtained using conventional plasticizers, e.g. dialkylbenzenesulfonamides. Thus, PPA-M [a poly(parabanic acid) prepared from diphenylmethane diisocyanate] 28, Santicizer 8 [8047-99-2] 7, and aromatic polyether sulfone 35 g were mixed at 320°C to give a clear, homogeneous melt. The melt was cooled, ground into a powder, and molded at 600°F to form a clear pad.  
IT 37725-18-1

Updated Search

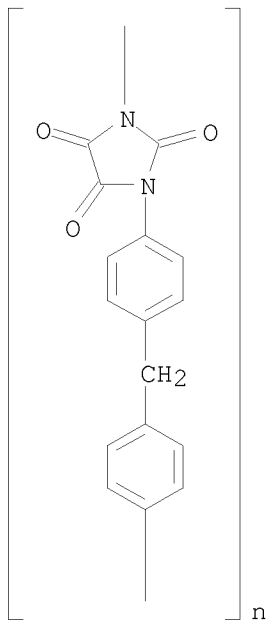
10501317

RL: USES (Uses)

(molding compns., containing polyesters and polyether-sulfones,  
homogeneous)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 270 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:161246 HCAPLUS

DOCUMENT NUMBER: 98:161246

ORIGINAL REFERENCE NO.: 98:24487a,24490a

TITLE: Copolymer of poly(parabanic acid) and polyimide

AUTHOR(S): Caraculacu, Georgeta; Scortanu, Elena; Caraculacu, Adrian A.

CORPORATE SOURCE: Inst. Macromol. Chem. "Petru Poni", Iasi, 6600, Rom.

SOURCE: Journal of Polymer Science, Polymer Letters Edition (1983), 21(4), 277-80

CODEN: JPYBAN; ISSN: 0360-6384

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Polyimide [85362-20-5] having alternating imide and parabanic rings is prepared by copolymerizing pyromellitic dianhydride with N,N'-bis(3-isocyanato-4-methyl)phenyl parabanic acid via a 7-membered cyclic urethane intermediate. The polyamide is soluble in DMF, DMSO, and N-methylpyrrolidone, has m.p. >360°, is thermally stable in air and N at 350 and 410°, resp., and has inherent viscosity 0.12 dL/g in DMF.

IT 85339-96-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and properties of)

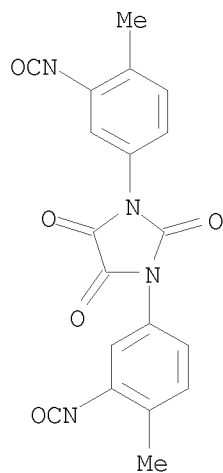
Updated Search

10501317

RN 85339-96-4 HCAPLUS  
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with  
bis(3-isocyanato-4-methylphenyl)imidazolidinetrione (9CI) (CA INDEX NAME)

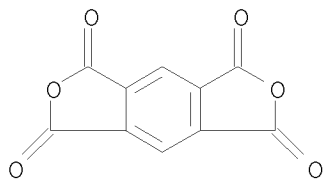
CM 1

CRN 54518-24-0  
CMF C19 H12 N4 O5



CM 2

CRN 89-32-7  
CMF C10 H2 O6



L4 ANSWER 271 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:108595 HCAPLUS  
DOCUMENT NUMBER: 98:108595  
ORIGINAL REFERENCE NO.: 98:16569a,16572a  
TITLE: Insulation  
INVENTOR(S): Patton, Tad Lemarre  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: Eur. Pat. Appl., 12 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English

Updated Search

10501317

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 64348	A2	19821110	EP 1982-301974	19820416
R: BE, CH, DE, FR, GB, IT, NL, SE				
JP 57191052	A	19821124	JP 1982-74656	19820506
JP 03033504	B	19910517		

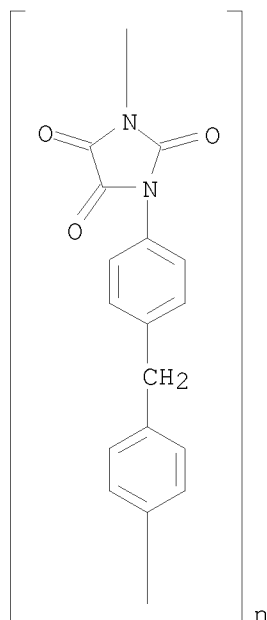
PRIORITY APPLN. INFO.: US 1981-261063 A 19810506

AB An insulating structure comprises a nonporous microcellular film (0.0127-0.508 mm) of a heterocyclic polymer, e.g. poly(parabanic acids), optionally bonded to a 2nd material, e.g. glass, wood, metal, paper, asbestos, or plastic. Thus, a polyurethane foam box having a cover comprising a 0.25-mm-thick cellular film of poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] had temps. inside in direct sunlight of 29° at 9:10 am, 47° at 10:30 am, 46° at 1:10 pm, 41° at 4:00 pm, and 41° at 4:30 pm, compared with 29, 73, 83, 70, and 65, resp., for a glass cover.

IT 37725-18-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(cellular, films, thermal insulators)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 272 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:108594 HCAPLUS  
DOCUMENT NUMBER: 98:108594

Updated Search



10501317

ORIGINAL REFERENCE NO.: 98:16569a,16572a  
TITLE: Insulating and an insulating structure  
INVENTOR(S): Patton, Lemarre Tad  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: Eur. Pat. Appl., 15 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 64374	A2	19821110	EP 1982-302117	19820426
R: BE, CH, DE, FR, GB, IT, NL, SE				
CA 1214982	A1	19861209	CA 1982-398758	19820318
PRIORITY APPLN. INFO.:			US 1981-260945	A 19810506

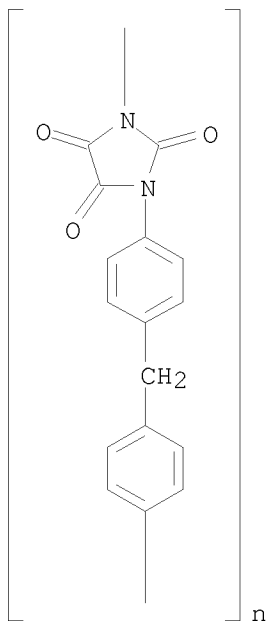
AB An insulating structure comprises a laminate consisting of a film (5-10 mils) of a heterocyclic polymer, e.g. poly(parabanic acid), bonded to a 2nd material, e.g. glass, wood, metal, paper, asbestos, or plastic. Thus, a polyurethane foam box having a cover comprising glass coated with a clear poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] film (0.122 mm) had temps. inside in direct sunlight of 28° at 8:05 am, 48° at 9:35 am, 65° at 11:15 am, 70° at 1:15 pm, and 63° at 3:15 pm, compared with 28, 56, 76, 82, and 76, resp., for a glass cover.

IT 37725-18-1

RL: USES (Uses)  
(laminates, thermal insulators)

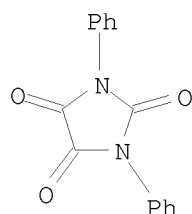
RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



10501317

L4 ANSWER 273 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:71359 HCAPLUS  
DOCUMENT NUMBER: 98:71359  
ORIGINAL REFERENCE NO.: 98:10907a,10910a  
TITLE: Carbon-13 chemical shifts in some 1-substituted  
5-imino-3-phenyl-4-thioxo-2-imidazolidinones and  
related compounds  
AUTHOR(S): Litchman, William M.  
CORPORATE SOURCE: Chem. Dep., Univ. New Mexico, Albuquerque, NM, 87131,  
USA  
SOURCE: Journal of Heterocyclic Chemistry (1982), 19(5),  
1137-40  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The 13C NMR of the title compds. were assigned by classical means.  
Coupling of the imino proton to C-5 is smaller than that to C-4. A very  
large downfield shift due to substitution of a carbonyl S atom at C-4 is  
observed The NMR assignments are self-consistent throughout the series.  
IT 6488-59-1  
RL: PRP (Properties)  
(carbon-13 NMR of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 274 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1983:53891 HCAPLUS  
DOCUMENT NUMBER: 98:53891  
ORIGINAL REFERENCE NO.: 98:8297a,8300a  
TITLE: 1,3-Substituted parabanic acids via their 2,4,5-imino  
derivatives  
INVENTOR(S): Beckert, Rainer; Mayer, Roland  
PATENT ASSIGNEE(S): Ger. Dem. Rep.  
SOURCE: Ger. (East), 7 pp.  
CODEN: GEXXA8  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 154818	A1	19820421	DD 1980-225475	19801126

Updated Search

10501317

PRIORITY APPLN. INFO.:

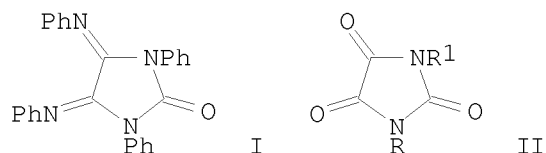
DD 1980-225475

19801126

OTHER SOURCE(S):

CASREACT 98:53891

GI



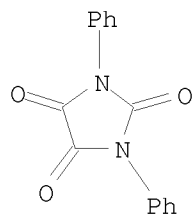
AB Title compds. were prepared via cyclization of oxalamidines. Thus,  $\text{PhN:C(NHPh)C(NHPh):NPh}$  was cyclized with  $\text{COCl}_2$  to give I, which with  $\text{EtOH-HCl}$  gave II ( $\text{R} = \text{R1} = \text{Ph}$ ). Also prepared were II ( $\text{R} = \text{R1} = \text{p-MeOC}_6\text{H}_4$ ) and II ( $\text{R} = \text{Ph}, \text{R1} = \text{p-MeOC}_6\text{H}_4$ ).

IT 6488-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 275 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:188 HCAPLUS

DOCUMENT NUMBER: 98:188

ORIGINAL REFERENCE NO.: 98:31a,34a

TITLE: Inhibition of aldose reductases from rat and bovine lenses by hydantoin derivatives

AUTHOR(S): Inagaki, Kazuhiro; Miwa, Ichitomo; Yashiro, Tamotsu; Okuda, Jun

CORPORATE SOURCE: Fac. Pharm., Meijo Univ., Nagoya, 468, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1982), 30(9), 3244-54

CODEN: CPBTAL; ISSN: 0009-2363

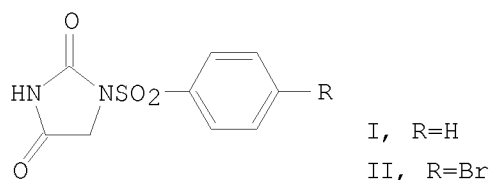
DOCUMENT TYPE: Journal

LANGUAGE: English

GI

Updated Search

10501317



AB Fifty-four hydantoin derivs. consisting of 25 hydantoins, 21 2-thiohydantoins and 8 2-alkylthiohydantoins were synthesized and tested for in vitro inhibition of aldose reductase [9028-31-3] from rat and bovine lenses. 1-(benzenesulfonyl)hydantoin (I) [83800-61-7] and its derivs., 1-[(substituted benzene)sulfonyl]hydantoins, were found to be potent inhibitors of the enzymes. 1-[(p-bromobenzene)sulfonyl]hydantoin (II) [83800-77-5] was the most potent among them. It inhibited purified rat and bovine lens aldose reductases by 50% at  $7 \times 10^{-7}M$  and  $3.7 \times 10^{-7}M$ , resp. Inhibition of rat and bovine lens aldose reductases by II was due to its nonionized form, but not the ionized form, and was of a noncompetitive type with respect to DL-glyceraldehyde as a substrate. Structure-activity relations and the potential value of these compds. in diabetic cataract prevention are discussed.

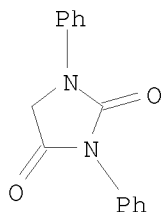
IT 3157-03-7

RL: BIOL (Biological study)

(aldose reductase inhibition by, structure in relation to)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 276 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:617452 HCAPLUS

DOCUMENT NUMBER: 97:217452

ORIGINAL REFERENCE NO.: 97:36513a,36516a

TITLE: Polymers characterized by 1,3-imidazolidine-1,3-diyl rings plasticized with diaryl ketones

INVENTOR(S): Patton, Tad L.

PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA

SOURCE: U.S., 7 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

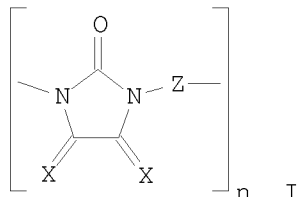
APPLICATION NO.

DATE

Updated Search

10501317

US 4352905	A	19821005	US 1981-314899	19811026
EP 79670	A1	19830525	EP 1982-305037	19820923
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 58076452	A	19830509	JP 1982-175230	19821004
CA 1197940	A1	19851210	CA 1982-412933	19821006
PRIORITY APPLN. INFO.:			US 1981-314899	A 19811026
OTHER SOURCE(S):	MARPAT 97:217452			
GI				



AB Compds. containing an imidazolidine ring (I, X = O, NH, at least 1 X is O; Z = divalent hydrocarbon), which are normally intractable, are plasticized by diaryl ketones. Thus, 59.5 g poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] and 10.5 g benzophenone [119-61-9] were heated and mixed in a Brabender mixer at 290° at 40 rpm. The blend melted in 2 min and remained stable for >30 min.

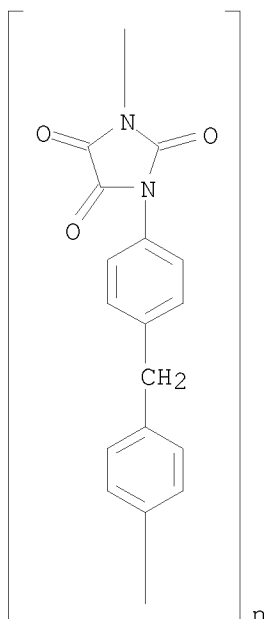
IT 37725-18-1  
 RL: USES (Uses)  
 (plasticizers for, diaryl ketones as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 277 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:563769 HCAPLUS

DOCUMENT NUMBER: 97:163769

ORIGINAL REFERENCE NO.: 97:27336h,27337a

TITLE: Relations between glass transition temperature, thermodynamic values, and mechanical values for predicting material properties from the chemical structure

AUTHOR(S): Batzer, Hans; Kreibich, Ursula T.

CORPORATE SOURCE: Div. Kunststoffe Additive, Ciba Geigy A.-G., Basel, Switz.

SOURCE: Angewandte Makromolekulare Chemie (1982), 105, 113-30  
CODEN: ANMCBO; ISSN: 0003-3146

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The theory of Batzer and Kreibich (1979) relating the glass temperature (Tg) to a normalized cohesive energy (Ec) was extended to show a linear relation between Tg, normalized molar heat capacity (Cp), and segmental mol. weight (Mseg) for thermoplastics without side chains and with weak intermol. interactions at 200-600 K. From this relation, linear correlations between Cp, Ec, and Mseg were obtained without further normalization, which were not limited to linear, less polar thermoplastics. Direct relations between Cc and Ec and mech. properties, e.g., yield point and shear modulus, were obtained for crosslinked epoxy resins at 298 K.

IT 83346-37-6

RL: PRP (Properties)

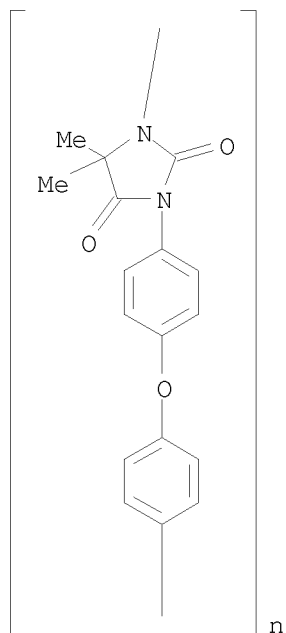
(mech. properties of, thermodyn. properties in relation to)

RN 83346-37-6 HCAPLUS

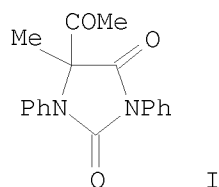
CN Poly[(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 278 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:562886 HCAPLUS  
DOCUMENT NUMBER: 97:162886  
ORIGINAL REFERENCE NO.: 97:27169a,27172a  
TITLE: Conjugated Schiff bases. 14. Cycloaddition of heterocumulenes to some 1-oxa-4-azabutadienes  
AUTHOR(S): Moskal, Janusz; Moskal, Alexandra; Milart, Piotr  
CORPORATE SOURCE: Dep. Org. Chem., Univ. Sch. Kielce, Kielce, 25020, Pol.  
SOURCE: Tetrahedron (1982), 38(12), 1787-92  
CODEN: TETRAB; ISSN: 0040-4020  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 97:162886  
GI



AB 1,3-Cycloaddn. of 1-oxa-4-azabutadienes with heterocumulenes gave 5,5-disubstituted derivs. of 1,3-diarylhydantoin. E.g., cycloaddn. of (MeCO)2C:NPh, prepared in 75% yield by condensation of (MeCO)2CH2 with PhNO,

Updated Search

10501317

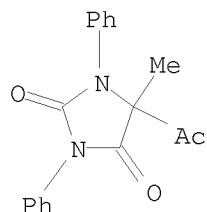
with PhNCO in refluxing C<sub>6</sub>H<sub>6</sub> gave 68% hydantoin I. The relatively high yields, mild reaction conditions, and a very weak solvent polarity effect on the reaction rate suggests a synchronous mechanism involving 1,2-migration of a substituent.

IT 14625-07-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 14625-07-1 HCAPLUS

CN 2,4-Imidazolidinedione, 5-acetyl-5-methyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 279 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:528634 HCAPLUS

DOCUMENT NUMBER: 97:128634

ORIGINAL REFERENCE NO.: 97:21373a,21376a

TITLE: Enhancing the flammability resistance of polyparabanic acid films by the addition of copper chelates

INVENTOR(S): Johnson, Burnett Hood

PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 50410	A1	19820428	EP 1981-304157	19810910
R: BE, CH, DE, FR, GB, IT, NL, SE				
US 4361667	A	19821130	US 1980-198329	19801020
JP 57126845	A	19820806	JP 1981-166489	19811020
PRIORITY APPLN. INFO.:			US 1980-198329	A 19801020

OTHER SOURCE(S): MARPAT 97:128634

AB Thin films (0.025-0.127 mm thick) of poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (I) [37725-18-1] containing halogenated flame retardants have enhanced flame retardancy when 0.1-0.3% Cu chelate is added. Thus, I film containing 1.0% Cu 2-hydroxy-4-methoxy-5-sulfobenzophenone (II) and octabromodiphenyl ether (III) [32536-52-0] had O index 34 and was self-extinguishing in the ASTM D-568 vertical burn test. I film containing II alone had O index 23, and when III alone was present, the value was 31.

IT 37725-18-1

RL: USES (Uses)

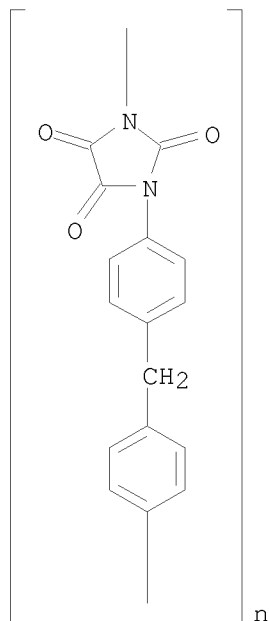
(flame retardants for, copper chelates and halogenated compds. as)

Updated Search

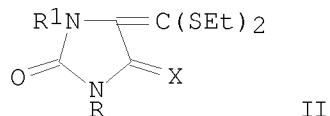


10501317

RN 37725-18-1 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 280 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:527561 HCAPLUS  
DOCUMENT NUMBER: 97:127561  
ORIGINAL REFERENCE NO.: 97:21177a,21180a  
TITLE: Regioselective 5-exo-trig-cyclization in the reaction of [bis(ethylthio)vinylidene]triphenylphosphorane with heteroallenes  
AUTHOR(S): Bestmann, Hans Juergen; Roth, Kurt  
CORPORATE SOURCE: Inst. Org. Chem., Univ. Erlangen-Nuernberg, Erlangen, D-8520, Fed. Rep. Ger.  
SOURCE: Angewandte Chemie (1982), 94(8), 635-6  
CODEN: ANCEAD; ISSN: 0044-8249  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 97:127561  
GI



AB Ph3P+C-:C(SET)2 (I) reacted with RNCS (R = Ph, Me, 4-MeC6H4) to give

Updated Search

10501317

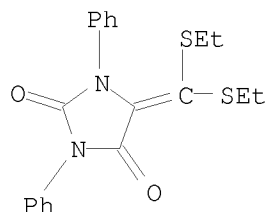
crystalline  $\text{RN:C(S-)C(P+Ph}_3\text{):C(SEt)}_2$  which reacted with  $\text{R}_1\text{NCO}$  ( $\text{R}_1 = \text{Me, Bu}$ ) to give the imidazolidines II ( $\text{X} = \text{S}$ ). Reaction of I with  $\text{RNCO}$  ( $\text{R} = \text{Me, Ph, Bu}$ ) gave II ( $\text{X} = \text{O, R} = \text{R}_1 = \text{Me, Ph, Bu}$ ) directly.

IT 82390-53-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 82390-53-2 HCAPLUS

CN 2,4-Imidazolidinedione, 5-[bis(ethylthio)methylene]-1,3-diphenyl- (CA  
INDEX NAME)



L4 ANSWER 281 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:509924 HCAPLUS

DOCUMENT NUMBER: 97:109924

ORIGINAL REFERENCE NO.: 97:18289a,18292a

TITLE: Alkylation of weak bases by propargyl-type bromides  
under interphase catalysis conditions

AUTHOR(S): Mostamandi, A.; Remizova, L. A.; Fomenkova, T. N.;  
Favorskaya, I. A.

CORPORATE SOURCE: Leningr. Univ., Leningrad, USSR

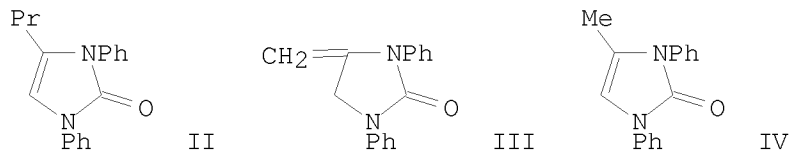
SOURCE: Zhurnal Organicheskoi Khimii (1982), 18(5), 977-80  
CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 97:109924

GI



AB Under phase-transfer conditions ( $\text{Bu}_4\text{NI}$ ) alkylation of  $\text{Ph}_2\text{NH}$  with  $\text{BrCH}_2\text{C.tplbond.CR}$  (I) (best in MeCN) gave  $\text{Ph}_2\text{NCH}_2\text{C.tplbond.CR}$  ( $\text{R} = \text{H, Et}$ ). Alkylation ( $\text{PhCH}_2\text{NEt}_3\text{Cl}$ ) of  $\text{PhNHCONHPh}$  with I ( $\text{R} = \text{Et}$ ) in MeCN gave  $\text{PhNHCONPhCH}_2\text{C.tplbond.CEt}$ , which in  $\text{CDCl}_3$  cyclized over a week to II; with I ( $\text{R} = \text{H}$ ) the products were III and IV.

IT 82812-66-6P

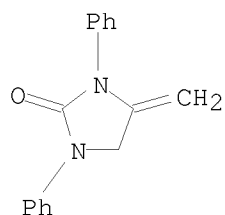
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 82812-66-6 HCAPLUS

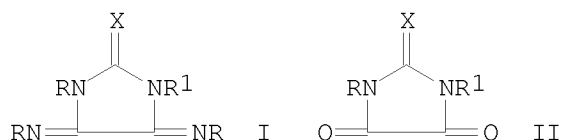
Updated Search

10501317

CN 2-Imidazolidinone, 4-methylene-1,3-diphenyl- (CA INDEX NAME)



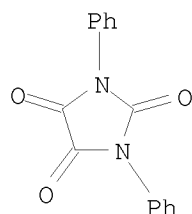
L4 ANSWER 282 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:509923 HCAPLUS  
DOCUMENT NUMBER: 97:109923  
ORIGINAL REFERENCE NO.: 97:18288h,18289a  
TITLE: Derivatives of imidazolidines from oxalamidines  
AUTHOR(S): Beckert, R.; Mayer, R.  
CORPORATE SOURCE: Sekt. Chem., Tech. Univ. Dresden, Dresden, DDR-8027, Ger. Dem. Rep.  
SOURCE: Journal fuer Praktische Chemie (Leipzig) (1982), 324(2), 227-36  
CODEN: JPCEAO; ISSN: 0021-8383  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 97:109923  
GI



AB Imidazolidines I (X = O, S, NPh, NBz, NCOC6H4OMe-4; R = Ph, 4-MeC6H4, 4-MeOC6H4; R1 = R, Me, allyl, 4-PhN:NC6H4, 2-O2NC6H4) were prepared by treating RNHC(:NR)C(:NR)NHR with CXCl2, ClCXSCl, R1NCX. Acid hydrolysis of I gave the diones II.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 283 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:493588 HCAPLUS  
DOCUMENT NUMBER: 97:93588  
ORIGINAL REFERENCE NO.: 97:15613a,15616a  
TITLE: Microcellular structures  
INVENTOR(S): Chien, William Moa Tseng  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: Eur. Pat. Appl., 28 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 52936	A1	19820602	EP 1981-304846	19811016
R: BE, CH, DE, FR, GB, IT, NL, SE				
JP 57126827	A	19820806	JP 1981-178906	19811107
JP 03052490	B	19910812		

PRIORITY APPLN. INFO.: US 1980-205036 A 19801107

AB Polymer films having a microcellular structure and a nonporous skin are prepared by casting a polymer solution as a wet film onto a substrate and partially drying the film while contacting the surface with steam and thereafter drying it. Thus, poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] (7.9 kg in 28.2 kg DMF) was cast onto a moving release paper substrate moving at 25 in./min into a casting oven maintained at 52°. Steam was injected into the bottom zone, and the film was passed from the oven into a water precipitation bath and then to a drier to give a nonporous microcellular film having elongation 172% and tensile strength 7011 psi, both in the machine direction.

IT 37725-18-1

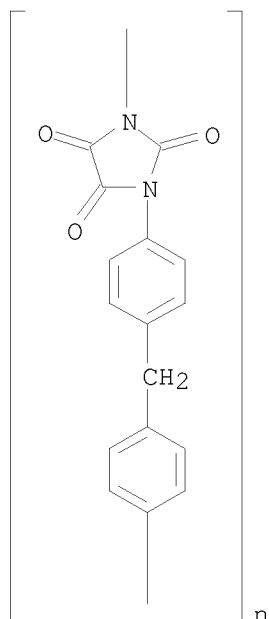
RL: USES (Uses)

(microcellular film, nonporous, mech. properties of)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

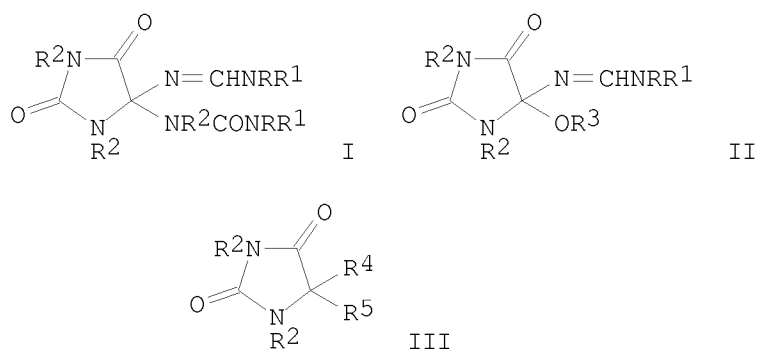
10501317



L4 ANSWER 284 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:423695 HCAPLUS  
DOCUMENT NUMBER: 97:23695  
ORIGINAL REFERENCE NO.: 97:4145a,4148a  
TITLE: Orthoamides. XXXVII. Reactions of  
2,2-bis(dialkylamino)acetonitriles and  
2-(dialkylamino)-2-methoxyacetonitriles with  
isocyanates  
AUTHOR(S): Kantlehner, Willi; Haug, Erwin; Isak, Heinz; Schulz,  
Wolfgang; Hippich, Silvin; Baur, Richard; Hagen,  
Helmut  
CORPORATE SOURCE: Fachber. Chem., Fachhochsch. Aalen, Aalen, D-7080,  
Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1982), 115(5), 1721-32  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 97:23695  
GI

Updated Search

10501317



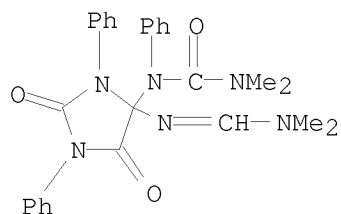
AB NCCH(NRR1)<sub>2</sub> (NRR1 = NMe<sub>2</sub>, pyrrolidino, piperidino) reacted with R<sub>2</sub>NCO (R<sub>2</sub> = Ph, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>, Me, Bu) to give the amins I which were hydrolyzed to II (R<sub>3</sub> = Me, Et, CH<sub>2</sub>Ph). II were also obtained by treating RR<sub>1</sub>NCH(OR<sub>3</sub>)<sub>2</sub> with 5-imino-2,4-imidazolidinediones. <sup>14</sup>C-labeling showed that the C-5 of the imidazolidine ring in I was derived from NCCH(NRR1)<sub>2</sub>. The mechanism of the cyclization is discussed. Reaction of MeOCH(CN)NRR1 with R<sub>2</sub>NCO gave III (R<sub>4</sub> = OMe, R<sub>5</sub> = NRR1, R<sub>4</sub>R<sub>5</sub> = NH).

IT 77066-66-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and ethanolysis of)

RN 77066-66-1 HCAPLUS

CN Urea, N-[4-[[[(dimethylamino)methylene]amino]-2,5-dioxo-1,3-diphenyl-4-imidazolidinyl]-N',N'-dimethyl-N-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 285 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:407390 HCAPLUS

DOCUMENT NUMBER: 97:7390

ORIGINAL REFERENCE NO.: 97:1413a,1416a

TITLE: Polymers with imidazolidine rings plasticized by aromatic esters

INVENTOR(S): Le Marre Patton, Tad

PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA

SOURCE: Eur. Pat. Appl., 27 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Updated Search

10501317

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 49047	A1	19820407	EP 1981-303886	19810825
R: BE, CH, DE, FR, GB, IT, NL, SE				
US 4330453	A	19820518	US 1980-191883	19800929
JP 57087457	A	19820531	JP 1981-153103	19810929
JP 02276829	A	19901113	JP 1989-214746	19890821
JP 03033733	B	19910520		
PRIORITY APPLN. INFO.:			US 1980-191883	A 19800929
			JP 1981-153103	19810929

OTHER SOURCE(S): MARPAT 97:7390

AB Poly(iminoimidazolidinediones) and poly(parabanic acids) are plasticized by esters of aromatic polycarboxylic acids. Thus, poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] containing 20% di-Me terephthalate [120-61-6] could be extruded at 260-280° and 50 rpm. The plasticized polymer lost 5% weight at 298°.

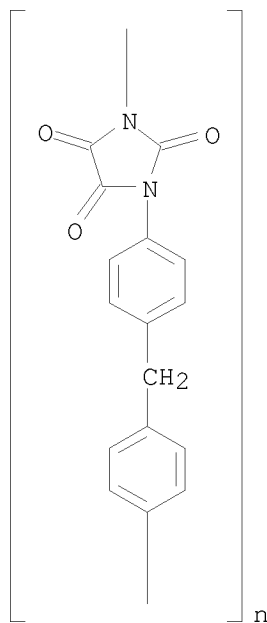
IT 37725-18-1

RL: USES (Uses)

(plasticizers for, aromatic esters as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 286 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:407386 HCAPLUS

DOCUMENT NUMBER: 97:7386

ORIGINAL REFERENCE NO.: 97:1413a,1416a

TITLE: Imidazolidine polymers plasticized with aromatic

Updated Search

10501317

INVENTOR(S): sulfones or sulfoxides  
 Johnson, Burnett H.  
 PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
 SOURCE: U.S., 6 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4325860	A	19820420	US 1981-229241	19810128
EP 57104	A2	19820804	EP 1982-300396	19820126
EP 57104	A3	19830831		
R: BE, CH, DE, FR, GB, IT, NL, SE				
JP 57145149	A	19820908	JP 1982-11048	19820128
JP 03072667	B	19911119		

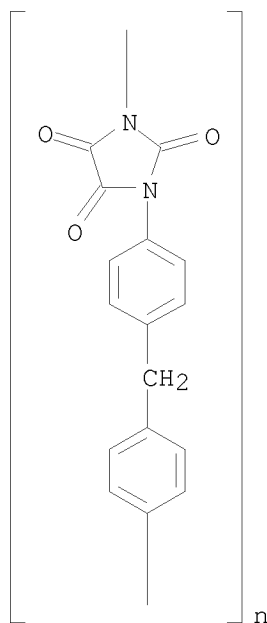
PRIORITY APPLN. INFO.: US 1981-229241 A 19810128

AB Polymers containing trisubstituted 1,3-imidazolidine-1,3-diyl repeating units are plasticized by diaryl sulfones or sulfoxides. Thus, poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] [37725-18-1] in DMF mixed with 15% Ph<sub>2</sub>SO<sub>2</sub> [127-63-9], and cast to a film with min. heat-sealing temperature 240° and peel strength 3.9 lb/in., compared to 290° and 1.2, resp., for unplasticized polymer.

IT 37725-18-1  
 RL: USES (Uses)  
 (plasticizers for, aromatic sulfones and sulfoxides as)

RN 37725-18-1 HCAPLUS

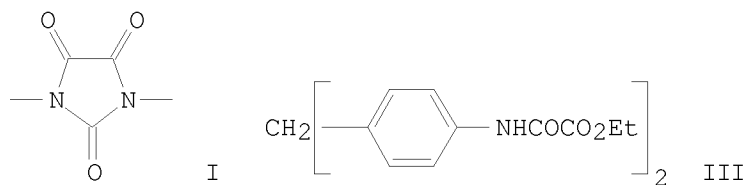
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)





10501317

L4 ANSWER 287 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:200302 HCAPLUS  
DOCUMENT NUMBER: 96:200302  
ORIGINAL REFERENCE NO.: 96:33055a,33058a  
TITLE: Synthesis of new parabanic acid copolymers  
AUTHOR(S): Chen, Augustin T.; Onder, Kemal B.  
CORPORATE SOURCE: Donald S. Gilmore Res. Lab., Upjohn Co., North Haven,  
CT, 06410, USA  
SOURCE: Polymer Preprints (American Chemical Society, Division  
of Polymer Chemistry) (1980), 21(2), 136-7  
CODEN: ACPPAY; ISSN: 0032-3934  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB Parabanic acid polymers containing amide or amide-imide groups in addition to the parabanic units (I) were prepared by treating 4,4'-diphenylmethane diisocyanate (II) with mixts. of bis(oxalic acid mono-Et ester monoamide) of diaminodiphenylmethane (III) with azelaic acid (IV) or trimellitic anhydride (V). The IV-containing products had glass temperature 185° and Young's modulus  $1.6 \times 10^7$  dyne/cm<sup>2</sup>, while the parabanic acid homopolymer from II and III had values of 280° and  $1.0 \times 10^9$ , resp. The amide-imide polymer from the V mixture had glass temperature 225° and Young's modulus  $3.6 \times 10^7$  dyne/cm<sup>2</sup>.

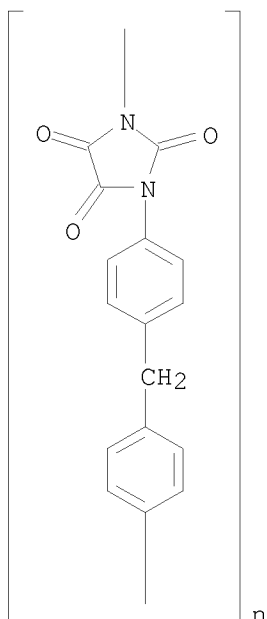
IT 37725-18-1P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

10501317

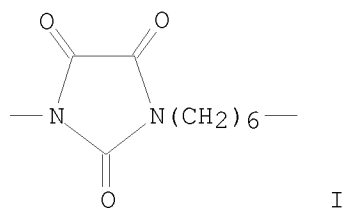


L4 ANSWER 288 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:182927 HCAPLUS  
DOCUMENT NUMBER: 96:182927  
ORIGINAL REFERENCE NO.: 96:30157a,30160a  
TITLE: Imidazolidinetriones useful in lacquers, adhesives, foams and moldings.  
INVENTOR(S): Zecher, Wilfried; Merten, Rudolf  
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
SOURCE: Eur. Pat. Appl., 22 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 44418	A1	19820127	EP 1981-104770	19810622
EP 44418	B1	19840222		
R: AT, DE, FR, GB, IT				
DE 3027618	A1	19820225	DE 1980-3027618	19800721
AT 6366	T	19840315	AT 1981-104770	19810622
US 4384122	A	19830517	US 1981-278641	19810629
JP 57045166	A	19820313	JP 1981-100761	19810630
PRIORITY APPLN. INFO.:			DE 1980-3027618	A 19800721
			EP 1981-104770	A 19810622
OTHER SOURCE(S):	MARPAT 96:182927			
GI				

Updated Search

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AB Imidazolidinetrione or polymers containing imidazolidinetrione units are manufactured by treating organic isocyanates or polyisocyanates with oxalic acid

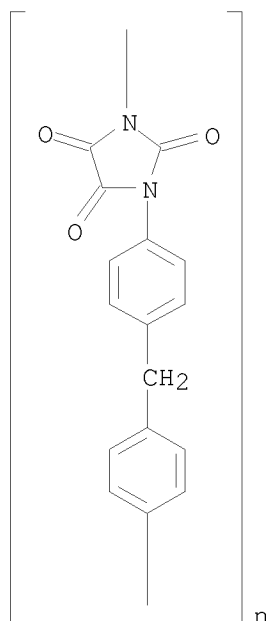
monoesters, optically in the presence of other reactants, catalysts, and solvents, at 0-450°. Thus, 26.0 g mono-Me oxalate and 43.7 g hexamethylene diisocyanate in 120 g AcNMe<sub>2</sub> were heated 4 h at 80, 120, 130, 140, and 150°, giving a polyimidazolidinetrione [34031-19-1] containing units of structure I as a brown, viscous solution. The solution was coated on a polished sheet metal, heated 15 min at 200°, and cured at 300° to give a clear, hard, coating film which showed a characteristic imidazolidinetrione band in IR.

IT 37725-18-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manufacture of, for coatings)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



10501317

L4 ANSWER 289 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:163692 HCAPLUS  
DOCUMENT NUMBER: 96:163692  
ORIGINAL REFERENCE NO.: 96:26971a,26974a  
TITLE: Epoxy adhesives for electronic devices  
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57002326	A	19820107	JP 1980-75646	19800606

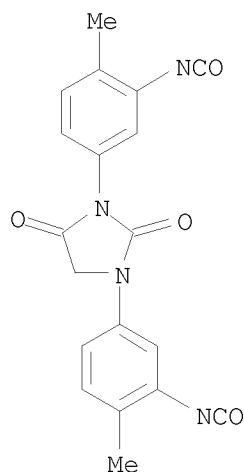
PRIORITY APPLN. INFO.: JP 1980-75646 A 19800606

AB Epoxy adhesives containing uretidinedione compds. and fluoro polymers gave heat- and moisture-resistant bonding. Thus, a composition of 1,3-bis(3-isocyanato-4-methylphenyl)-2,4-uretidinedione [54518-25-1] 31, Araldite ECN 1273 [37370-68-6] 100, PTFE [9002-84-0] 5, Et<sub>3</sub>N tetraphenylborate 3, and powdered quartz 97.3 parts was used for bonding a semiconductor device to a metal heat sink and cured at room temperature to give adhesive strength 38 kg before and after 500 h of heating in steam at 120° and 2 atmospheric

IT 54518-25-1  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents, for epoxy adhesives for semiconductor devices)

RN 54518-25-1 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(3-isocyanato-4-methylphenyl)- (CA INDEX NAME)



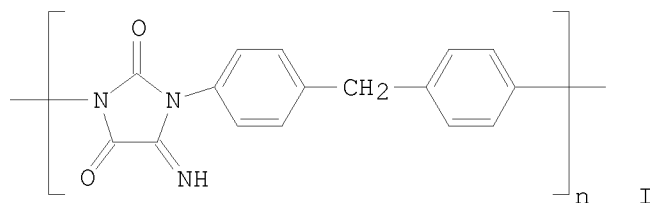
L4 ANSWER 290 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:163681 HCAPLUS  
DOCUMENT NUMBER: 96:163681

Updated Search

10501317

ORIGINAL REFERENCE NO.: 96:26967a,26970a  
TITLE: Polymers having 1,3-imidazolidine-1,3-diyl rings  
plasticized with aromatic nitriles  
INVENTOR(S): Patton, Tad Le Marre  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co. , USA  
SOURCE: Eur. Pat. Appl., 22 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 41852	A1	19811216	EP 1981-302519	19810605
R: BE, CH, DE, FR, GB, IT, NL, SE				
US 4324836	A	19820413	US 1980-158193	19800611
JP 57012056	A	19820121	JP 1981-68465	19810508
JP 01060508	B	19891222		
JP 01315434	A	19891220	JP 1989-115251	19890510
JP 03014864	B	19910227		
PRIORITY APPLN. INFO.:			US 1980-158193	A 19800611
GI				



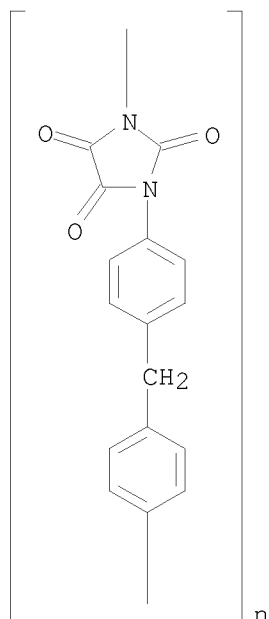
AB Polymers containing 1,3-imidazolidinedione-1,3-diyl or 1,3-imidazolidinetriene-1,3-diyl units are effectively plasticized by aromatic nitriles. For example, a blend of 54 g I [81139-34-6] and 6 g isophthalonitrile [626-17-5] was mixed in a Plasticorder at 290° and 40 rpm to give a homogeneous melt within 2 min. I without the nitrile did not melt.

IT 37725-18-1  
RL: USES (Uses)  
(plasticizers for, aromatic nitriles as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 291 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:84852 HCAPLUS

DOCUMENT NUMBER: 96:84852

ORIGINAL REFERENCE NO.: 96:13919a,13922a

TITLE: Conjugated Schiff bases. XIII. Sterically congested 1,4-diazabutadienes as dipolar reagents in 1,3-cycloaddition

AUTHOR(S): Moskal, Janusz; Bronowski, Janusz; Rogowski, Andrzej  
CORPORATE SOURCE: Dep. Org. Chem., Jagiellon. Univ., Krakow, PL-30060, Pol.

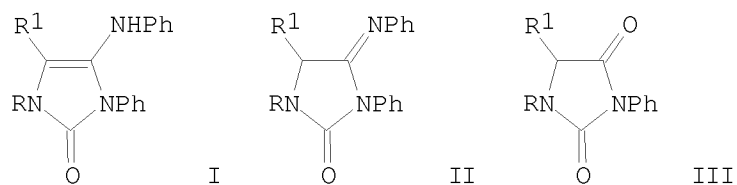
SOURCE: Monatshefte fuer Chemie (1981), 112(12), 1405-16  
CODEN: MOCMB7; ISSN: 0026-9247

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 96:84852

GI

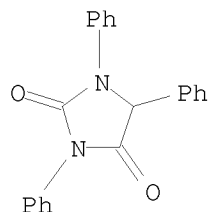


AB RN:CR1C(:NPh)C(X)NHR2 [R, R1, R2 = (un)substituted phenyl; X = O, S], prepared from the corresponding RNHC(R1):CHC(X)NHR2 and PhNO, underwent 1,3-cycloaddn. with PhNCO to give I (same R and R1). I isomerized to a large extent to give II. I in acidic solution gave III.

Updated Search

10501317

IT 61505-60-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 61505-60-0 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3,5-triphenyl- (CA INDEX NAME)



L4 ANSWER 292 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1982:36481 HCAPLUS  
DOCUMENT NUMBER: 96:36481  
ORIGINAL REFERENCE NO.: 96:6045a,6048a  
TITLE: Adhesives for electric coils  
PATENT ASSIGNEE(S): Toshiba Chemical K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56123606	A	19810928	JP 1980-24653	19800301

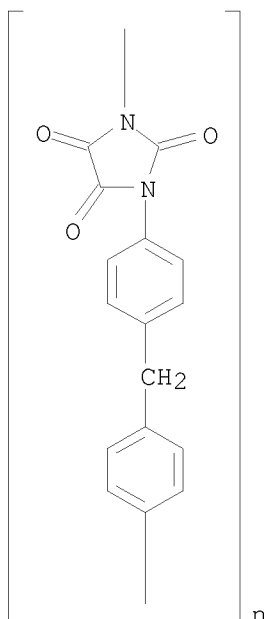
PRIORITY APPLN. INFO.: JP 1980-24653 A 19800301

AB An adhesive composition of 3-97 parts resins having ether linkages and 3-97 parts parabanic acid polymers is applied to wires for coils. Thus, a 0.5-mm wire insulated with 20- $\mu$  hydantoin group-containing polyamide-polyimide is top coated with a solution of 50 parts PKHH [25068-38-6] and 50 parts PPA-M [9085-75-0] in organic solvent, dried to 10- $\mu$ , wound on a 4-mm-diameter mandrel, and heated 30 min at 230° to give a coil having flexural strength 5.0, 4.0 and 2.0 kg at 25, 120, and 160°, resp., softening temperature 375°, breakdown voltage 13.5 kV, and good chemical and solvent resistance.

IT 37725-18-1  
RL: USES (Uses)  
(epoxy resin adhesives containing, for forming of elec. coils)

RN 37725-18-1 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 293 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:8303 HCAPLUS

DOCUMENT NUMBER: 96:8303

ORIGINAL REFERENCE NO.: 96:1493a,1496a

TITLE: Polyhydantoin from unsaturated carboxylic acids and polyiso(thio)cyanates

INVENTOR(S): Lewalter, Juergen; Merten, Rudolf; Zecher, Wilfried; Duenwald, Willi

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: U.S., 7 pp. Cont. of U.S. Ser. No. 958,940, abandoned. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4289868	A	19810915	US 1979-100712	19791206
PRIORITY APPLN. INFO.:			US 1978-958940	A1 19781108

AB Monomol. and poly(thio)hydantoin are prepared by treating an iso(thio)cyanate having  $\geq 2$  iso(thio)cyanate moieties with an unsatd. carboxylic acid derivative. Thus, 307.1 g 4-chlorophenyl isocyanate [104-12-1] was mixed with 410 g  $\gamma$ -butyrolactone and 4.6 g o-dichlorobenzene under N and the composition was treated with 148.2 g cinnamic acid [621-82-9] and 0.5 g endomethylenepiperazine. The solvent was distilled in vacuo and the residue was recrystd. to give 1,3-bis(4-chlorophenyl)-5-benzylhydantoin [70771-74-3]. Similar treatment of cinnamic acid with isophorone diisocyanate and 4,4'-diisocyanatodiphenylmethane gave a lacquer solution having viscosity 1270 cP at 20°. A lacquered 0.7-mm Cu wire obtained by applying

Updated Search



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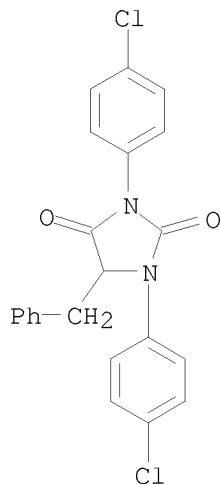
this solution and passing through a 4-m furnace at 9 m/min had softening temperature 330°, heat-shock temperature >220°, and permanent heat endurance ≥14 days at 180°.

IT 70771-74-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 70771-74-3 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(4-chlorophenyl)-5-(phenylmethyl)- (CA  
INDEX NAME)



L4 ANSWER 294 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:7521 HCAPLUS

DOCUMENT NUMBER: 96:7521

ORIGINAL REFERENCE NO.: 96:1369a,1372a

TITLE: Heat-resistant electric insulators

PATENT ASSIGNEE(S): Hitachi, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56099230	A	19810810	JP 1980-2074	19800114
PRIORITY APPLN. INFO.:			JP 1980-2074	A 19800114

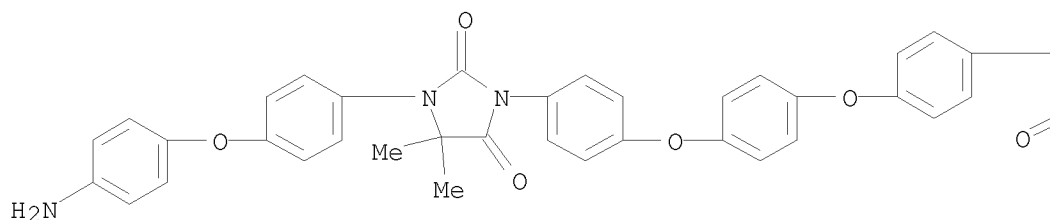
AB Bismaleimide compds. and compds. having hydantoin groups and ether linkages are heated to give dielec. resins having good heat resistance. Thus, a composition of 100 parts bis(4-maleimidophenyl)methane and 100 parts 1,4-bis[4-[1-[4-(4-aminophenoxy)phenyl]-5,5-dimethyl-2,4-dioxoimidazolidin-3-yl]phenoxy]benzene in 200 parts of a 80:20 N-methylpyrrolidinone-MEK mixture was applied to a pile of 4 glass cloths and pressed 1 h at 220° to give a copolymer [79922-52-4] laminate which retained the initial mech. strength after 60 days of heating at

Updated Search

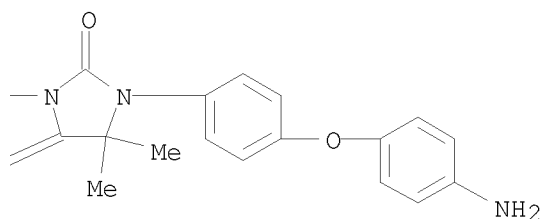
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200°.  
IT 79922-52-4  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(elec. insulators, heat-resistant)  
RN 79922-52-4 HCAPLUS  
CN 2,4-Imidazolidinedione, 3,3'-[1,4-phenylenebis(oxy-4,1-phenylene)]bis[1-[4-(4-aminophenoxy)phenyl]-5,5-dimethyl-, polymer with 1,1'-(methylenedi-4,1-phenylene)bis[1H-pyrrole-2,5-dione] (9CI) (CA INDEX NAME)  
CM 1  
CRN 24802-14-0  
CMF C52 H44 N6 O8

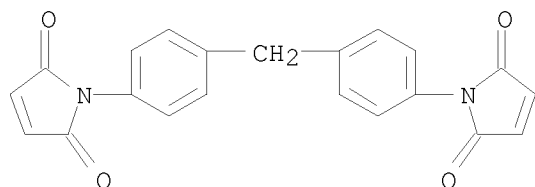
PAGE 1-A



PAGE 1-B



CM 2  
CRN 13676-54-5  
CMF C21 H14 N2 O4



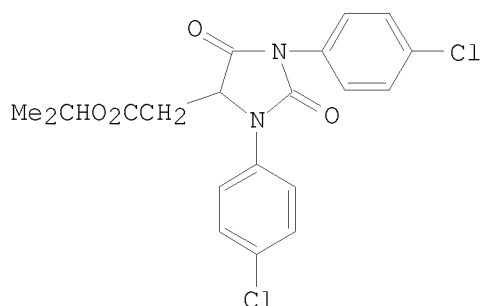
Updated Search

10501317

L4 ANSWER 295 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:621457 HCAPLUS  
DOCUMENT NUMBER: 95:221457  
ORIGINAL REFERENCE NO.: 95:36951a,36954a  
TITLE: Hydantoins  
INVENTOR(S): Zecher, Wilfried; Merten, Rudolf  
PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
SOURCE: Ger. Offen., 21 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3003773	A1	19810813	DE 1980-3003773	19800202
EP 33477	A1	19810812	EP 1981-100407	19810121
EP 33477	B1	19840718		
R: AT, CH, DE, FR, GB, IT, NL				
AT 8502	T	19840815	AT 1981-100407	19810121
JP 56122359	A	19810925	JP 1981-11741	19810130
ES 498994	A1	19811116	ES 1981-498994	19810130
PRIORITY APPLN. INFO.:			DE 1980-3003773	A 19800202
			EP 1981-100407	A 19810121
OTHER SOURCE(S):	MARPAT 95:221457			
GI				



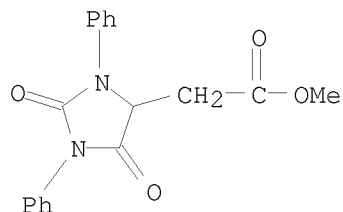
II

AB Monomeric and polymeric hydantoins were prepared by cycloaddn. of monoalkyl fumarates to monoisocyanates and polyisocyanates, resp., and the polyhydantoins were used as baked coatings. Thus, 79 g mono-iso-Pr fumarate [7529-87-5], 153.5 g 4-ClC<sub>6</sub>H<sub>4</sub>NCO [104-12-1], and 230 g N-methylpyrrolidone(I) were heated 2 h each at 80°, 100°, 120°, to give 156 g II [79786-57-5]. Heating mono-Et fumarate 72, 4,4'-diisocyanatodiphenylmethane 125, and I 350 g in stages to 80, 100, 120, and 130° gave a clear, brown polyhydantoin [79795-66-7] solution with viscosity 420 mPa-s at 25°. Coating this solution on a metal sheet and heating 15 min at 200-300° gave a clear, elastic coating.

IT 67443-80-5P

10501317

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 67443-80-5 HCAPLUS  
CN 4-Imidazolidineacetic acid, 2,5-dioxo-1,3-diphenyl-, methyl ester (CA  
INDEX NAME)



L4 ANSWER 296 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1981:620777 HCAPLUS  
DOCUMENT NUMBER: 95:220777  
ORIGINAL REFERENCE NO.: 95:36847a,36850a  
TITLE: Thermosetting polymer compositions  
PATENT ASSIGNEE(S): Toshiba Chemical K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56109225	A	19810829	JP 1980-12167	19800204
JP 63043420	B	19880830		

PRIORITY APPLN. INFO.: JP 1980-12167 A 19800204

AB A polyparabanic acid is crosslinked with dimaleimides and optionally monomaleimides using imidazole or alkylimidazole accelerators. The cured polymer is heat-resistant. Thus, 1.2 g 2MZ-AZINE (an imidazole) was added to a 100° mixture consisting of 60 g methylenebis(N-phenylmaleimide) and 100 g 20% polyparabanic acid-DMF solution, then 100 g DMF was added to prepare a 30% polymer solution, which was precipitated in water and pelletized. The pellets were molded at 200° to a specimen having a bending strength of 12.5 kg/mm<sup>2</sup> at 25° and 11 kg/mm<sup>2</sup> at 250°.

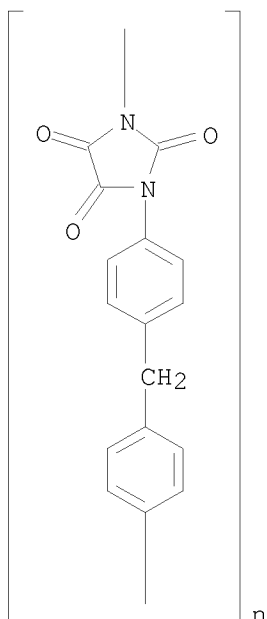
IT 37725-18-1

RL: TEM (Technical or engineered material use); USES (Uses)  
(thermosetting compns. of, with bismaleimide hardeners and imidazole accelerators)

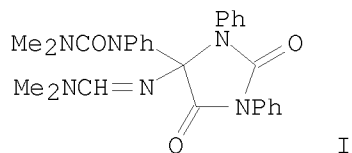
RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 297 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1981:138832 HCAPLUS  
DOCUMENT NUMBER: 94:138832  
ORIGINAL REFERENCE NO.: 94:22725a,22728a  
TITLE: Reaction between bis(dimethylamino)acetonitrile and phenylisocyanate. Preliminary communication  
AUTHOR(S): Seckinger, Karl  
CORPORATE SOURCE: Agrochem. Forschungslab., Sandoz A.-G., Basel, CH-4002, Switz.  
SOURCE: Helvetica Chimica Acta (1980), 63(7), 1958-9  
CODEN: HCACAV; ISSN: 0018-019X  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 94:138832  
GI

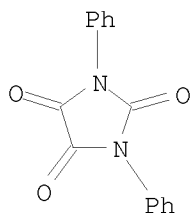


AB (Me<sub>2</sub>N)2CHCN reacts with PhNCO to yield the imidazolidione I, as confirmed by x-ray structure anal. The mechanism of I formation is discussed.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 6488-59-1 HCAPLUS

Updated Search

10501317

CN Imidazolidinetrioxone, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 298 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:48348 HCAPLUS

DOCUMENT NUMBER: 94:48348

ORIGINAL REFERENCE NO.: 94:7901a,7904a

TITLE: Stabilized polymer compositions

INVENTOR(S): Johnson, Burnett H.

PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4228066	A	19801014	US 1979-29597	19790412
CA 1129877	A1	19820817	CA 1980-348426	19800326
EP 19357	A1	19801126	EP 1980-301176	19800411
R: BE, CH, DE, FR, GB, IT, NL, SE				
JP 55141492	A	19801105	JP 1980-48546	19800412
JP 03001334	B	19910110		

PRIORITY APPLN. INFO.: US 1979-29597 A 19790412

AB Parabanic acid-containing polymer films are stabilized against UV light degradation by the addition of Cu 2-hydroxybenzophenone chelates. For example, a

25- $\mu$  thick film of poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (I) [37725-18-1] containing 0.5 weight% Cu 2-hydroxy-4-methoxy-2'-carboxybenzophenone chelate retains 90% of its propagating tear strength after 1344 h exposure to UV light, but I films containing 2-hydroxy-4-methoxy-2'-carboxybenzophenone and no stabilizer retained 45 and <1%, resp., of their tear strength after the same exposure.

IT 37725-18-1

RL: USES (Uses)

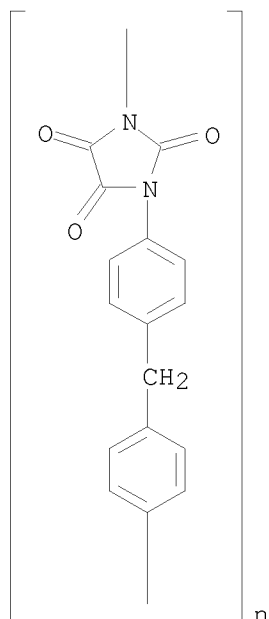
(films, UV light stabilization of, by copper hydroxybenzophenone chelates)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 299 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:4014 HCAPLUS

DOCUMENT NUMBER: 94:4014

ORIGINAL REFERENCE NO.: 94:747a,750a

TITLE: N-(Trifluoromethanesulfonylaminophenyl)-N-heterocycles, compositions containing them, and their use in regulating plant growth

INVENTOR(S): Tobler, Hans; Schurter, Rolf; Toepfl, Werner; Foery, Werner

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 126 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

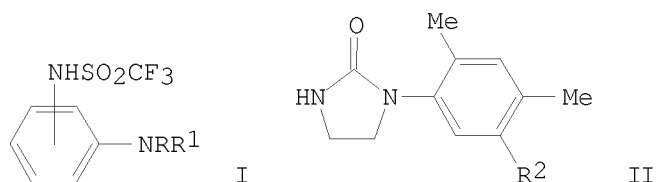
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 11693	A1	19800611	EP 1979-103734	19791001
R: AT, BE, CH, DE, FR, GB, IT, NL				
PRIORITY APPLN. INFO.:			CH 1978-10251	A 19781003
GI				

Updated Search

10501317



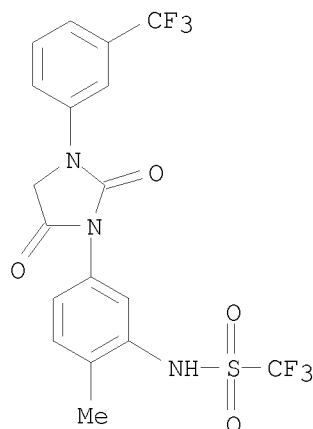
AB The title compds. I ( $\text{NRR}^1$  = heterocycle; the benzene ring may be further substituted) were prepared. Thus 2,4,5- $\text{Me}_2(\text{O}_2\text{N})\text{C}_6\text{H}_2\text{NH}_2$  was treated with  $\text{ClCH}_2\text{CH}_2\text{NCO}$  to give 73.7% 2,4,5- $\text{Me}_2(\text{O}_2\text{N})\text{C}_6\text{H}_2\text{NHCONHCH}_2\text{CH}_2\text{Cl}$ , which was cyclized with base to give 57.1% II ( $\text{R}^2 = \text{NO}_2$ ). Hydrogenation of II ( $\text{R}^2 = \text{NO}_2$ ) gave 74.1% II ( $\text{R}^2 = \text{NH}_2$ ), which was treated with  $(\text{CF}_3\text{SO}_2)_2\text{O}$  to give 85.4% II ( $\text{R}^2 = \text{NHSO}_2\text{CF}_3$ ).

IT 75849-71-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 75849-71-7 HCAPLUS

CN Methanesulfonamide, N-[5-[2,5-dioxo-3-[3-(trifluoromethyl)phenyl]-1-imidazolidinyl]-2-methylphenyl]-1,1,1-trifluoro- (CA INDEX NAME)



L4 ANSWER 300 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:641265 HCAPLUS

DOCUMENT NUMBER: 93:241265

ORIGINAL REFERENCE NO.: 93:38661a,38664a

TITLE: Hydantoins

INVENTOR(S): Lewalter, Juergen; Merten, Rudolf; Duenwald, Willi; Schulte, Bernhard

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 31 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

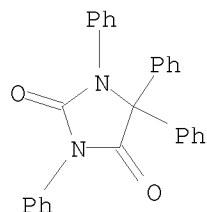
PATENT INFORMATION:

Updated Search



10501317

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2855770	A1	19800710	DE 1978-2855770	19781222
PRIORITY APPLN. INFO.:			DE 1978-2855770	A 19781222
<p>AB The reactions of <math>\alpha,\beta</math>-dicarbonyl compds., such as benzil [134-81-6], with monoisocyanates and polyisocyanates give hydantoin ring-containing compds. The polymeric compds. obtained with polyisocyanates are useful for the preparation of heat-resistant coatings, e.g., as insulating coatings for Cu wire. Thus, benzil 210.2, PhNCO [103-71-9] 238.2, and Me3COH 0.2 g are heated at 175° to prepare 1,3,5,5-tetraphenylhydantoin [75589-48-9]. Also, benzil 210.2, m-cresol 500, [4-(OCN)C6H4]2CH2 250.2, (MeNH)2CO 0.5, and xylene 20 g were heated at 200° for .apprx.12 h, and the product [75577-92-3] mixed with 575 g m-cresol, coated on Cu wire, and heated to prepare a coating which softened at <math>\geq 330^\circ</math>, was stable for &gt;21 days at 200°, and had hardness 5H and good chemical resistance.</p>				
<p>IT 75589-48-9P            RL: SPN (Synthetic preparation); PREP (Preparation)            (preparation of)</p>				
<p>RN 75589-48-9 HCAPLUS</p>				
<p>CN 2,4-Imidazolidinedione, 1,3,5,5-tetraphenyl- (CA INDEX NAME)</p>				

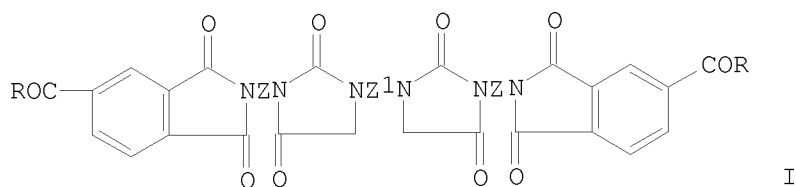


L4 ANSWER 301 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1980:640487 HCAPLUS  
 DOCUMENT NUMBER: 93:240487  
 ORIGINAL REFERENCE NO.: 93:38549a,38552a  
 TITLE: Aromatic dicarboxylic acids  
 PATENT ASSIGNEE(S): Dainichiseika Color and Chemicals Mfg. Co., Ltd.,  
 Japan; Ukima Gosei K. K.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55069578	A	19800526	JP 1978-141082	19781117
JP 56052023	B	19811209		
PRIORITY APPLN. INFO.:			JP 1978-141082	A 19781117
GI				

Updated Search

10501317



AB Aromatic dicarboxylic acid derivs. (I; R = OH, alkoxy, NH<sub>2</sub>, or halide, Z, Z1 = phenylene, biphenylene, etc.) were prepared for use in the manufacture of heat-resistant polymers. Thus, 342 parts 4,4'-bis(methoxycarbonylmethylamino)diphenylmethane [10097-19-5] was heated with 685 parts 4,4'-bis(ethoxycarbonylamino)diphenylmethane [10097-16-2] in xylene 4 h at 180-200° under distillation of 450 parts EtOH-MeOH-xylene mixture, and 870 parts mixture of m- and p-cresol was added to the mixture to give a hydantoin derivative, which was heated with 384 parts trimellitic anhydride [552-30-7] 4 h at 180-200° under quant. distillation of EtOH-CO<sub>2</sub>-xylene mixture to give I (R = H, Z = Z1 = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p) (II) [75587-13-2]. II in cresol was treated with di-Me terephthalate, ethylene glycol, and tris(hydroxyethyl) isocyanurate in xylene at 200° to give copolymer [75587-14-3], useful as a heat-resistant elec. insulating wire coating.

IT 75587-14-3P

RL: PREP (Preparation)

(manufacture of, for heat-resistant elec. insulating coatings for elec. wires)

RN 75587-14-3 HCAPLUS

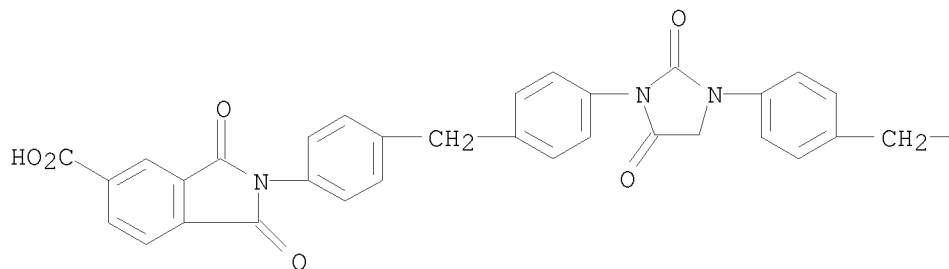
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,2-ethanediol, 2,2'-[methylenebis[4,1-phenylene-2,5-dioxo-3,1-imidazolidinediyl-4,1-phenylenemethylene-4,1-phenylene]]bis[2,3-dihydro-1,3-dioxo-1H-isoindole-5-carboxylic acid] and 1,3,5-tris(2-hydroxyethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 75587-13-2

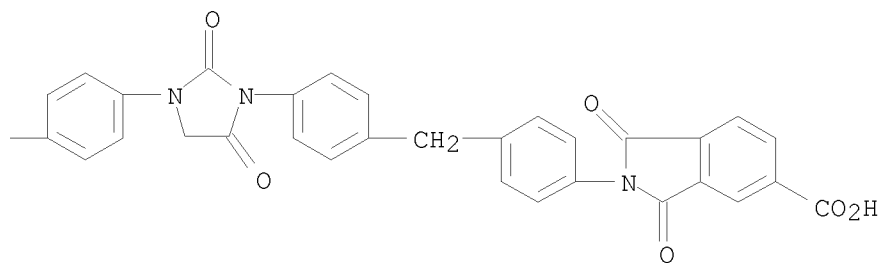
CMF C63 H42 N6 O12

PAGE 1-A



10501317

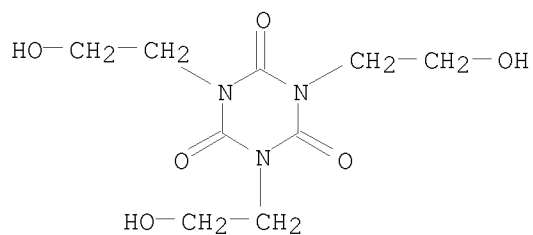
PAGE 1-B



CM 2

CRN 839-90-7

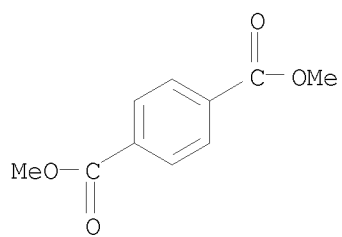
CMF C9 H15 N3 O6



CM 3

CRN 120-61-6

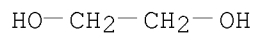
CMF C10 H10 O4



CM 4

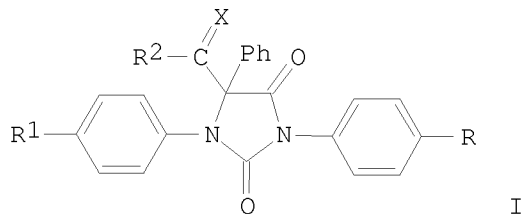
CRN 107-21-1

CMF C2 H6 O2

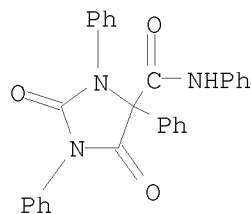


Updated Search

L4 ANSWER 302 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:638055 HCAPLUS  
DOCUMENT NUMBER: 93:238055  
ORIGINAL REFERENCE NO.: 93:38119a,38122a  
TITLE: Aziridinone intermediates in electron impact induced  
fragmentation of some new hydantoins  
AUTHOR(S): Moskal, Janusz; Nagraha, Krzysztof; Moskal, Alexandra  
CORPORATE SOURCE: Dep. Org. Chem., Jagiellonian Univ., Krakow, 30060,  
Pol.  
SOURCE: Organic Mass Spectrometry (1980), 15(5), 257-62  
CODEN: ORMSBG; ISSN: 0030-493X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB	The electron impact mass spectra of I (R = R1 = H, X = O, R2 = NHPh, NHC6H4OMe-p, NHC6H4Cl-p, Ph, OEt; X = S, R2 = NHC6H4Cl-p; R = H, R1 = Br, NMe2, X = O, R2 = NHPh; R = H, R1 = Cl, X = S, R2 = NHPh; R = Cl, R1 = H, X = O, R2 = NHPh, OEt) were recorded. The fragmentation mechanism was elucidated.
IT	72742-94-0 RL: PRP (Properties) (electron-impact mass spectra of)
RN	72742-94-0 HCAPLUS
CN	4-Imidazolidinecarboxamide, 2,5-dioxo-N,1,3,4-tetraphenyl- (CA INDEX NAME)

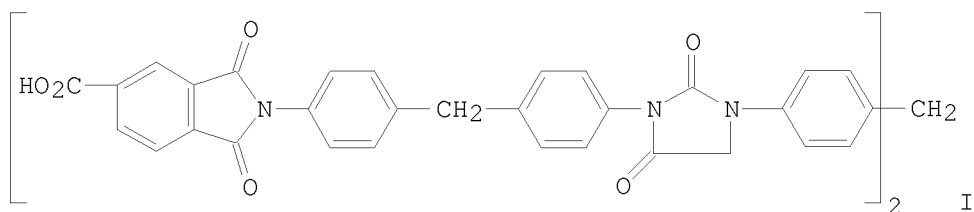


Updated Search

10501317

DOCUMENT NUMBER: 93:222022  
ORIGINAL REFERENCE NO.: 93:35453a,35456a  
TITLE: Electric insulator coating compositions  
PATENT ASSIGNEE(S): Ukima Gosei K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 55082174	A	19800620	JP 1978-155796	19781219
PRIORITY APPLN. INFO.: GI			JP 1978-155796	A 19781219



AB Elec.-insulating coating compns. contain heat-resistant polyesters containing both hydantoin ring and cyclic imide group in their main chains. For example, polymerization mixture from di-Me terephthalate 97, ethylene glycol 18.6,

tris(2-hydroxyethyl) isocyanurate 78.4, xylene 16, and litharge 0.2 part was heated with 90 parts 43.4% I solution in cresol at 200-210° to give a clear solution which was diluted with cresol to 50% solids content and then with 2:1 cresol-Solvesso 100 to 35% solids content, mixed with 2% (based on solids content) Ti(OBu)<sub>4</sub>, and baked on Cu wire to give an insulation with excellent resistance to thermal shocks, abrasion, and coolants.

IT 75587-14-3

RL: USES (Uses)

(elec. insulators, heat-resistant)

RN 75587-14-3 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,2-ethanediol, 2,2'-[methylenebis[4,1-phenylene-2,5-dioxo-3,1-imidazolidinediyl-4,1-phenylenemethylene-4,1-phenylene]]bis[2,3-dihydro-1,3-dioxo-1H-isoindole-5-carboxylic acid] and 1,3,5-tris(2-hydroxyethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

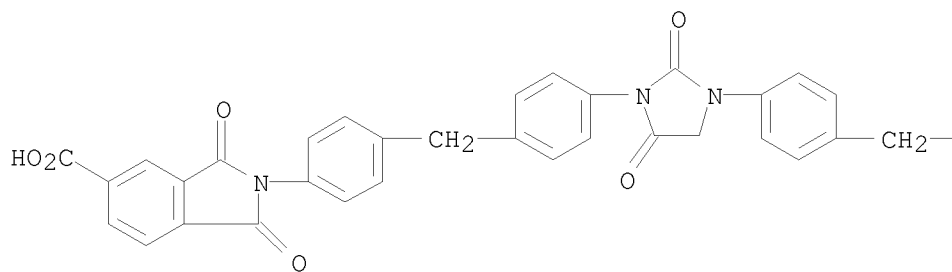
CRN 75587-13-2

CMF C63 H42 N6 O12

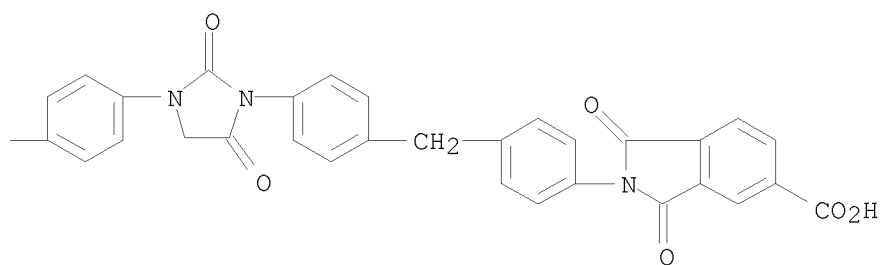
Updated Search

10501317

PAGE 1-A



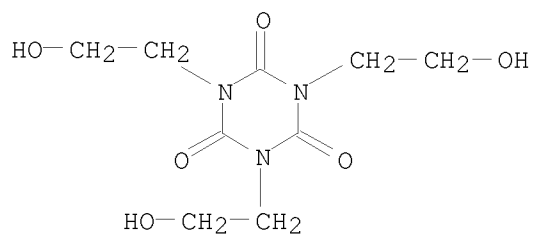
PAGE 1-B



CM 2

CRN 839-90-7

CMF C9 H15 N3 O6

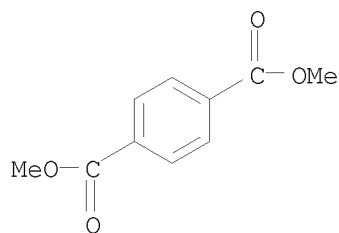


CM 3

CRN 120-61-6

CMF C10 H10 O4

10501317



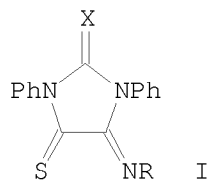
CM 4

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

L4 ANSWER 304 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:604542 HCAPLUS  
DOCUMENT NUMBER: 93:204542  
ORIGINAL REFERENCE NO.: 93:32637a,32640a  
TITLE: Heterocyclic ring-closure reactions. 6. Preparation and further cyclization reactions of 5-imino-1,3-diphenyl-4-thioxo-2-imidazolidinone and 5-imino-1,3-diphenyl-2,4-imidazolidinedithione  
AUTHOR(S): Ketcham, Roger; Schaumann, Ernst  
CORPORATE SOURCE: Sch. Pharm., Univ. California, San Francisco, CA, 94143, USA  
SOURCE: Journal of Organic Chemistry (1980), 45(19), 3748-50  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 93:204542  
GI

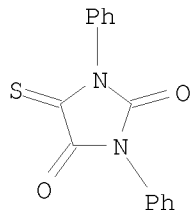


AB Cyclization of PhNCX with PhNHC(S)CN gave 56-70% title compds. I (X = O, S; R = H) (II). Further reactions of II were discussed. Thus, treating II with PhNCO gave quant. yields of I (R = PhNHCO).  
IT 71342-31-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)

Updated Search

10501317

(preparation of)  
RN 71342-31-9 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-thioxo- (CA INDEX NAME)



L4 ANSWER 305 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:534008 HCAPLUS  
DOCUMENT NUMBER: 93:134008  
ORIGINAL REFERENCE NO.: 93:21371a,21374a  
TITLE: Hydantoins  
INVENTOR(S): Lewalter, Juergen; Rottmaier, Ludwig; Merten, Rudolf;  
Duenwald, Willi; Schulte, Bernhard  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 34 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2855937	A1	19800710	DE 1978-2855937	19781223
EP 13727	A1	19800806	EP 1979-105050	19791210
EP 13727	B1	19820407		
R: AT, DE, FR, GB, IT				
AT 820	T	19820415	AT 1979-105050	19791210
JP 55087774	A	19800702	JP 1979-165760	19791221
PRIORITY APPLN. INFO.:			DE 1978-2855937	A 19781223
			EP 1979-105050	A 19791210

AB Hydantoins and thiohydantoins are prepared by treating organic isocyanates with  $\alpha$ -hydroxy or  $\alpha$ -sulfhydryl carboxylic acid derivs. Thus, di-Et malate 190.2, 4,4'-diisocyanatodiphenylmethane 262.7, and endoethylenepiperazine 0.5 g were heated 2 h at 160-70° while 954 g  $\gamma$ -butyrolactone was added gradually as the viscosity increased, and then heated 1 h at 190°, 4 h at 200-5°, and 1 h at 205-10°, giving a 30% solution with viscosity 58,750 cP at 20°. This solution was diluted to 22% with  $\gamma$ -butyrolactone and used to coat a Cu wire, giving a thermoset coating with softening temperature  $\geq 330^\circ$ , heat shock  $\geq 260^\circ$ , heat resistance  $\geq 21$  days at 200°, excellent elasticity, pencil hardness 5H, and good chemical resistance.

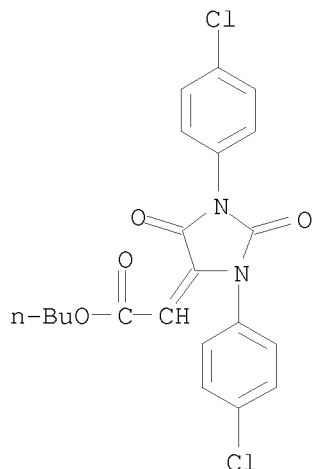
IT 74956-08-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

Updated Search



10501317

RN 74956-08-4 HCAPLUS  
CN Acetic acid, [1,3-bis(4-chlorophenyl)-2,5-dioxo-4-imidazolidinylidene]-, butyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 306 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:515539 HCAPLUS  
DOCUMENT NUMBER: 93:115539  
ORIGINAL REFERENCE NO.: 93:18517a,18520a  
TITLE: Microcellular heterocyclic polymer structures  
INVENTOR(S): Johnson, Burnett H.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: U.S., 9 pp. Cont.-in-part of U.S. Ser. No. 643,062, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 4201820	A	19800506	US 1978-866442	19780103
US 4262094	A	19810414	US 1979-60084	19790724
PRIORITY APPLN. INFO.:			US 1973-356924	A3 19730503
			US 1975-643062	A2 19751222
			US 1977-833535	A2 19770915
			US 1978-866444	A1 19780103

AB Polymers are cast by a solvent-nonsolvent technique to nonporous, thin, microcellular films to which conductive circuits (e.g., Cu) can be laminated. Thus, a film was cast from a solution of poly(parabanic acid) 19.7, DMF 79, and octabromobiphenyl fire retardant 1.3%. The films were partially dried, precipitated in water, and dried at 180° F to thickness 4.5-6.0 mils.

IT 37725-18-1  
RL: USES (Uses)

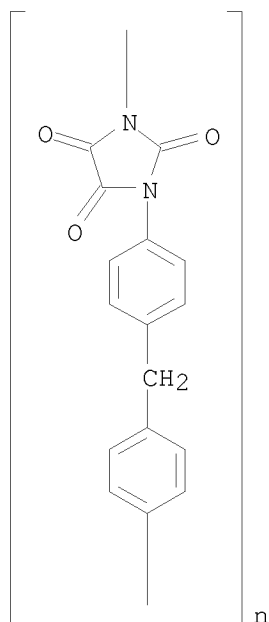
Updated Search

10501317

(microporous films, casting of)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 307 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:408113 HCAPLUS

DOCUMENT NUMBER: 93:8113

ORIGINAL REFERENCE NO.: 93:1490h,1491a

TITLE: Conjugated Schiff bases. 10. Control effect of charge resonance coupling of 1,3-cycloaddition of heterocumulenes to some 1,4-diazabutadienes

AUTHOR(S): Moskal, Janusz; Moskal, Alexandra; Pietrzycki, Wladsklaw

CORPORATE SOURCE: Dep. Org. Chem., Jagiellonian Univ., Krakow, 30060, Pol.

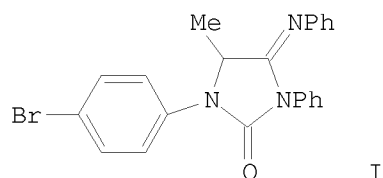
SOURCE: Tetrahedron (1979), 35(15), 1883-91

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



Updated Search

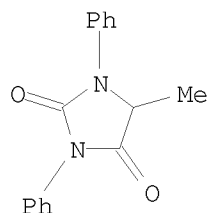
10501317

AB The 1,3-dipolar cycloaddns. of organic isocyanates to some 1,4-diazabutadienes was examined by theor. and exptl. methods. E.g., PhNCO and 4-BrC<sub>6</sub>H<sub>4</sub>N:CM<sub>2</sub>C(:NPh)CONHPh gave 70% of the cycloaddn. product I. Anal. of HOMO-LUMO interactions indicated the reaction mechanism and the product structure. The cycloaddn. was proved to be combined with a 1,4 sigmatropic type H shift and elimination of the initial 1,4-diazabutadiene fragment.

IT 73812-78-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 73812-78-9 HCAPLUS

CN 2,4-Imidazolidinedione, 5-methyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 308 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:224316 HCAPLUS

DOCUMENT NUMBER: 92:224316

ORIGINAL REFERENCE NO.: 92:36175a,36178a

TITLE: Electrode plates for liquid crystal display cells

INVENTOR(S): Watanabe, Takeshi; Sudo, Ryoichi; Shoji, Fusaji; Takemoto, Kazunari; Yokono, Ataru

PATENT ASSIGNEE(S): Hitachi, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55002235	A	19800109	JP 1978-74185	19780621

PRIORITY APPLN. INFO.: JP 1978-74185 A 19780621

AB Electrode plates for liquid crystal display devices are coated with polyhydantoin resin on the side which contacts the liquid crystal composition. The coating improves the homogeneous (parallel) orientation of the liquid crystal mol. in the display cell. Thus, In<sub>2</sub>O<sub>3</sub> electrode patterns were formed on glass supports, then the supports were coated (on the electrode side) with Resist Therm (a polyhydantoin) solution, and conventional nematic liquid crystal compns. and the electrode plates were used to construct twisted nematic type liquid crystal display cells. The liquid crystal mols. showed excellent orientation in the cells.

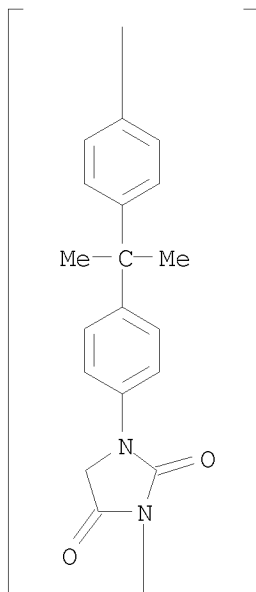
IT 73863-84-0  
RL: USES (Uses)

Updated Search

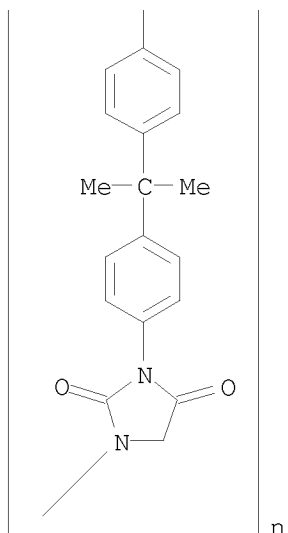
10501317

	(liquid crystal display electrode plates coated with)
RN	73863-84-0 HCAPLUS
CN	Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



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L4 ANSWER 309 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:207161 HCAPLUS  
DOCUMENT NUMBER: 92:207161  
ORIGINAL REFERENCE NO.: 92:33433a,33436a  
TITLE: Electrode plates for liquid crystal display devices  
INVENTOR(S): Watanabe, Takeshi; Sudo, Ryoichi; Shoji, Fusaji;  
Takemoto, Kazunari; Yokona, Tadashi  
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 55012911	A	19800129	JP 1978-85107	19780714

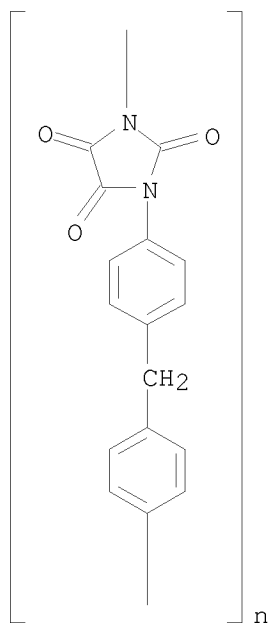
PRIORITY APPLN. INFO.: JP 1978-85107 A 19780714

AB Electrode plates for liquid crystal display devices are coated with poly(parabanic acid) to improve the homogeneous (parallel to the electrode plates) orientation of the liquid crystal mols. Thus, electrode plates coated with PPA-M and PPA-E (parabanic acid derivative polymers from Esso) were used to prepare liquid crystal display devices. Various types of liquid crystal comps. were used with good mol orientations.

IT 37725-18-1  
RL: USES (Uses)  
(liquid crystal display device electrode plates coated with)

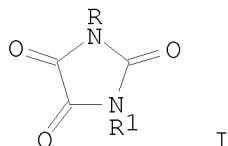
RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

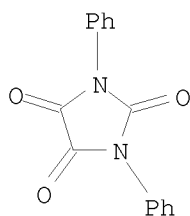


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L4 ANSWER 310 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:180159 HCAPLUS  
DOCUMENT NUMBER: 92:180159  
ORIGINAL REFERENCE NO.: 92:29173a,29176a  
TITLE: Mass spectra of heterocyclic compounds. IV.  
2,4,5-Trioxoimidazolidines  
AUTHOR(S): Corral, Renee A.; Orazi, Orfeo O.; Zinczuk, Juan  
CORPORATE SOURCE: Fac. Cienc. Exactas, Univ. Nac. La Plata, La Plata,  
1900, Argent.  
SOURCE: Organic Mass Spectrometry (1979), 14(9), 470-3  
CODEN: ORMSBG; ISSN: 0030-493X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB The mass spectra of 21 title compds. I (R, R1 = alkyl, aryl) were determined, and the fragmentation paths rationalized using metastable transitions, high-resolution measurements and D and 18O labeling. The results are useful for the identification of derivs.  
IT 6488-59-1  
RL: PRP (Properties)  
(mass spectrum of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



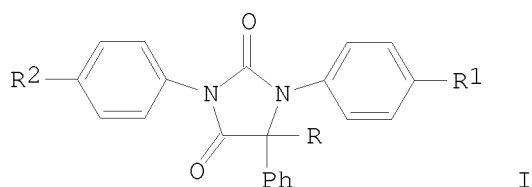
L4 ANSWER 311 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1980:94297 HCAPLUS  
DOCUMENT NUMBER: 92:94297  
ORIGINAL REFERENCE NO.: 92:15409a,15412a  
TITLE: Conjugated Schiff bases; XI. A new preparation of some 5,5-disubstituted hydantoins  
AUTHOR(S): Moskal, Janusz; Moskal, Aleksandra  
CORPORATE SOURCE: Inst. Chem., Univ. Jagiellonski, Krakow, 30060, Pol.  
SOURCE: Synthesis (1979), (10), 794-7

Updated Search

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DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 92:94297  
GI

CODEN: SYNTBF; ISSN: 0039-7881

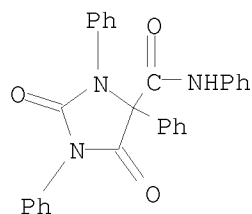


AB Hydantoins I (R = CONHR<sub>3</sub>, CSNHR<sub>3</sub>, CO<sub>2</sub>Et, Bz; R<sub>1</sub> = H, NMe<sub>2</sub>, Br, Cl; R<sub>2</sub> = H, Cl; R<sub>3</sub> = Ph, 3-pyridyl, 4-MeOC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>) were obtained by treating PhCOCH<sub>2</sub>R with 4-R<sub>1</sub>C<sub>6</sub>H<sub>4</sub>NO and treating PhCOCR:NC<sub>6</sub>H<sub>4</sub>R<sub>1</sub>-4 with 4-R<sub>2</sub>NCO. I (R = CONHPh, 3-pyridylaminocarbonyl, CONHC<sub>6</sub>H<sub>4</sub>OMe-4, CONHC<sub>6</sub>H<sub>4</sub>Cl-4, R<sub>1</sub> = R<sub>2</sub> = H; R = CONHPh, R<sub>1</sub> = H, R<sub>2</sub> = Cl) was thermally decomposed to I (R = H).

IT 72742-94-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and thermal decomposition of)

RN 72742-94-0 HCAPLUS

CN 4-Imidazolidinecarboxamide, 2,5-dioxo-N,1,3,4-tetraphenyl- (CA INDEX NAME)



L4 ANSWER 312 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:593228 HCAPLUS

DOCUMENT NUMBER: 91:193228

ORIGINAL REFERENCE NO.: 91:31123a,31126a

TITLE: Reactions of isocyanates with 1-cyanothioformanilide

AUTHOR(S): Papadopoulos, Eleftherios Paul

CORPORATE SOURCE: Dep. Chem., Univ. New Mexico, Albuquerque, NM, 87131, USA

SOURCE: Journal of Organic Chemistry (1979), 44(22), 3858-61  
CODEN: JOCEAH; ISSN: 0022-3263

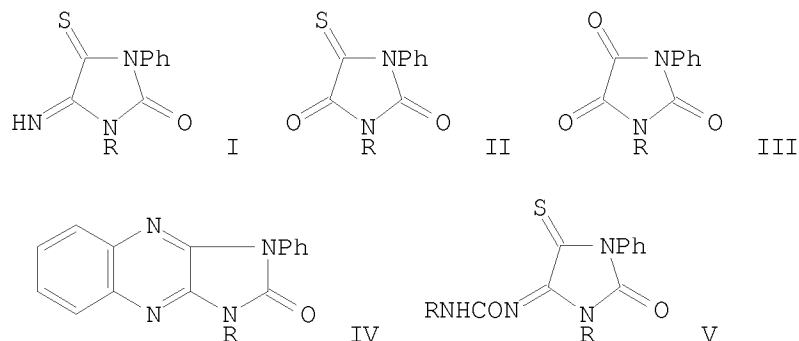
DOCUMENT TYPE: Journal

LANGUAGE: English

Updated Search

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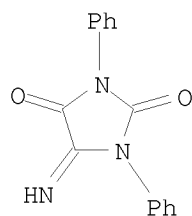
AB The Et<sub>3</sub>N-catalyzed reaction of NCC(S)NPh with RNCO (R = Ph, tolyl, Et, Bu, 4-ClC<sub>6</sub>H<sub>4</sub>) gives 5-imino-3-phenyl-4-thioxo-2-imidazolidinones (I) in excellent yields. I are converted by aqueous acid into 3-phenyl-4-thioxo-2,5-imidazolidinediones II and are oxidized by H<sub>2</sub>O<sub>2</sub> in HOAc to 3-phenylimidazolidinetrioxones III. Condensation of I with o-phenylenediamine yields 1H-imidazo[4,5-b]quinoxalin-2(3H)-one IV. Upon being heated, NCC(S)NPh reacts with 2 equivalent of RNCO to form 5-carbamoylimino-3-phenyl-4-thioxo-2-imidazolidinones V.

IT 10319-52-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrolysis of)

RN 10319-52-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-imino-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 313 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:559155 HCAPLUS

DOCUMENT NUMBER: 91:159155

ORIGINAL REFERENCE NO.: 91:25689a,25692a

TITLE: Coating formulation

INVENTOR(S): Legbandt, Thomas J.

PATENT ASSIGNEE(S): La Barge, Inc., USA

SOURCE: U.S., 8 pp.

CODEN: USXXAM

Updated Search



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DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4161564	A	19790717	US 1977-772854	19770228
PRIORITY APPLN. INFO.:			US 1975-612292	A3 19750911

AB Colored coatings containing a 1,3-imidazolidine-2,4,5-trione derivative polymer and a free radical scavenger were prepared for application on polyimide insulating coatings on elec. wire. Thus, a 24-gage stranded wire was wrapped with a 2-ply FEP-backed Kapton polyimide tape, which was dried, heat-sealed, etched in 1,4-di-Me naphthenate, rinsed in Me<sub>2</sub>CO-MeOH, dried 24 h, and overcoated with Liquid H 301 polyimide enamel. The wrapped, heat-sealed, and overcoated conductor was coated with a color-coded topcoat by sequential dipping in a formulation containing 70 g PPA-M [9085-75-0] (1,3-imidazolidine-2,4,5-trione derivative polymer), 3.5 g PES 720P [71503-66-7] [poly(arylether sulfone)], 184 mg Good-Rite 3125 [34137-09-2], 513.3 mL DMF, 136.4 g 20% (weight/volume) TiO<sub>2</sub> in N-methyl-2-pyrrolidone (I) and 26.9 g 10% (weight/volume) red orange pigment 9879 in I, and drying in a 2-stage vertical oven. Four passes through the coating bath and drying oven gave a 1-mil-thick pink pastel topcoating with good resistance to heat-aging, cold-bending and abrasion.

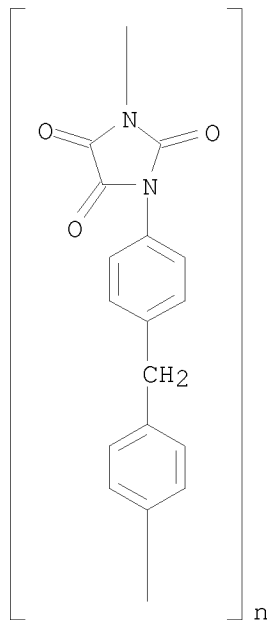
IT 37725-18-1

RL: USES (Uses)

(coating, color coded, on polyimide-insulated elec. wires)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



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L4 ANSWER 314 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:509132 HCAPLUS  
DOCUMENT NUMBER: 91:109132  
ORIGINAL REFERENCE NO.: 91:17615a,17618a  
TITLE: Hydantoins  
INVENTOR(S): Zecher, Wilfried; Lewalter, Juergen; Merten, Rudolf;  
Duenwald, Willi  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 29 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2758569	A1	19790705	DE 1977-2758569	19771229
EP 2662	A1	19790711	EP 1978-101272	19781102
EP 2662	B1	19820106		
R: DE, FR, GB				
US 4246393	A	19810120	US 1978-958941	19781108
AT 7808055	A	19860515	AT 1978-8055	19781110
AT 381948	B	19861210		
JP 54095569	A	19790728	JP 1978-138429	19781111
JP 62005146	B	19870203		

PRIORITY APPLN. INFO.: DE 1977-2758569 19771229

OTHER SOURCE(S): MARPAT 91:109132

AB Hydantoin derivs. useful as biochem. active compds. and in heat-resistant coatings are prepared from unsatd. carboxylic acids and organic isocyanates. Thus, heating 58 g fumaric acid, 375 g CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NCO-p)<sub>2</sub>, and 570 g butyrolactone at 110°, adding 111 g BuOH so as to control the exothermic reaction, and heating 3 h at 130°, 3 h at 150°, and 7 h at 170° gives a brown, viscous solution of BuOH-blocked hydantoin isocyanate (I) containing <0.5% free NCO. A 30% solids cresol solution of 200 g I and 100 g ethylene glycol-glycerol-terephthalic acid polyester containing 0.5% Ti(OBu)<sub>4</sub> catalyst is coated on 0.7-mm Cu wire at oven temperature 400° and 9 m/min to give a coating with softening temperature 324° and abrasion resistance 20 cycles.

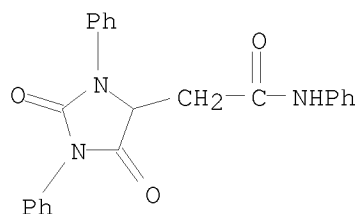
IT 67500-17-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 67500-17-8 HCAPLUS

CN 4-Imidazolidineacetamide, 2,5-dioxo-N,1,3-triphenyl- (CA INDEX NAME)

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L4 ANSWER 315 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:458885 HCAPLUS

DOCUMENT NUMBER: 91:58885

ORIGINAL REFERENCE NO.: 91:9555a,9558a

TITLE: Hydantoins

INVENTOR(S): Lewalter, Juergen; Merten, Rudolf; Zecher, Wilfried;  
Duenwald, Willi

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 21 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2750771	A1	19790517	DE 1977-2750771	19771112
EP 2444	A1	19790627	EP 1978-101270	19781102
EP 2444	B1	19820120		

R: DE, FR, GB

JP 54076582	A	19790619	JP 1978-138427	19781111
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PRIORITY APPLN. INFO.:	DE 1977-2750771	19771112
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AB Hydantoins and polyhydantoins for the manufacture of coating materials, films, adhesives, and moldings are prepared from isocyanates and unsatd. carboxylic acids. Thus, reaction of p-ClC<sub>6</sub>H<sub>4</sub>NCO [104-12-1] with PhCH:CHCO<sub>2</sub>H [621-82-9] in  $\gamma$ -butyrolactone (I)-o-C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub> gave 5-benzyl-1,3-bis(4-chlorophenyl)hydantoin [70771-74-3]. Stirring CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NCO-p)<sub>2</sub> with mucochloric acid in I-PhMe gave a solution with viscosity 1730 cP. The solution was coated on sheet metal and dried 15 min at 250° and 10 min at 300° to give an elastic coating with good surface hardness and solvent resistance.

IT 70771-74-3P

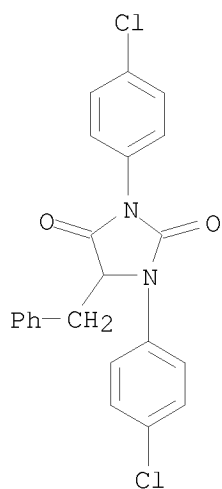
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 70771-74-3 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(4-chlorophenyl)-5-(phenylmethyl)- (CA  
INDEX NAME)

Updated Search

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L4 ANSWER 316 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:440362 HCAPLUS  
DOCUMENT NUMBER: 91:40362  
ORIGINAL REFERENCE NO.: 91:6589a,6592a  
TITLE: Plasticized compositions containing polymers  
characterized by 1,3-imidazolidine-1,3-diyl rings and  
N,N-dialkyl aromatic sulfonamides  
INVENTOR(S): Patton, Tad L.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

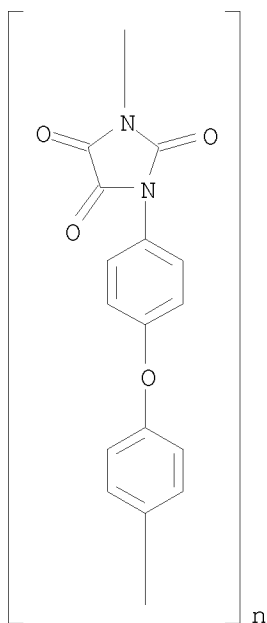
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4147684	A	19790403	US 1978-873913	19780201
GB 2013698	A	19790815	GB 1979-3107	19790130
GB 2013698	B	19820428		
FR 2416247	A1	19790831	FR 1979-2533	19790131
BE 873861	A2	19790801	BE 1979-57585	19790201
DE 2903853	A1	19790802	DE 1979-2903853	19790201
NL 7900832	A	19790803	NL 1979-832	19790201
JP 54119551	A	19790917	JP 1979-9769	19790201
JP 01009344	B	19890217		

PRIORITY APPLN. INFO.: US 1978-873913 A 19780201

AB The addition of 10-60% N,N-dialkyl aromatic sulfonamides as plasticizers to imidazolidine derivative polymers [e.g. polyiminoimidazolidinediones or poly(parabanic acids)] made them extrudable. A blend containing 200 g poly[1,4-phenylenemethylene-1,4-phenylene-1,3-(imidazolidine-2,4,5-trione)] [37725-18-1] and 50 g N,N-dibutyl-p-toluenesulfonamide [599-65-5] had intrinsic viscosity 1.16 and gave clear smooth extrudates when extruded through a Brabender extruder at 300° in the feed zone, 280° in the second zone, and 280° in the die and with

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compression ratio 3:1.  
IT 31626-60-5  
RL: USES (Uses)  
(plasticizers for, dialkyl aromatic sulfonamides as)  
RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 317 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:406147 HCAPLUS  
DOCUMENT NUMBER: 91:6147  
ORIGINAL REFERENCE NO.: 91:1125a,1128a  
TITLE: Polyparabanic acid/copper foil laminates obtained by  
direct solution casting  
INVENTOR(S): Henderson, Don J.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: U.S., 3 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4148969	A	19790410	US 1977-832760	19770912
US 4226913	A	19801007	US 1978-970605	19781218
PRIORITY APPLN. INFO.:			US 1976-663596	A1 19760303
			US 1974-464359	A1 19740426
			US 1977-832760	A3 19770912

Updated Search

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AB Poly(parabanic acid) Cu foil laminates are manufactured with the polymer bonded to the metal substrate without an adhesive and without extensive crosslinking for use in preparing flexible printed circuit boards which would withstand high soldering temps. without distortion or delamination were prepared Thus, PPA-M (hydrolyzed copolymer of diphenylmethane diisocyanate with HCN) was dissolved in DMF to give a 17% solution, and 2 oz. Cu foil was coated on the matt side with a 13 mil wet coating, heated 8 min at 204° in a N atmospheric, and dried 1 h at 250° to give a 3-mil coating on the Cu. The laminate was tough, flexible, and creasable without delamination or cracking. The structure was unaffected when immersed 15 s in a 260° solder bath.

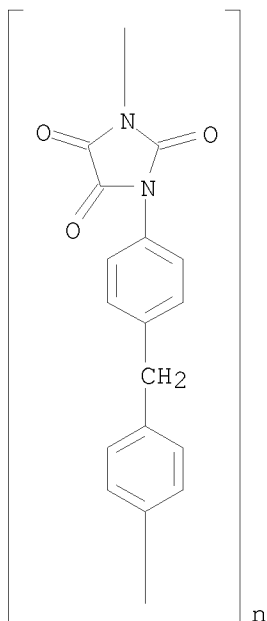
IT 37725-18-1

RL: USES (Uses)

(laminates with copper foil, heat-resistant, for printed circuits)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 318 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:405283 HCAPLUS

DOCUMENT NUMBER: 91:5283

ORIGINAL REFERENCE NO.: 91:991a,994a

TITLE: Reaction of trimethylsilyl cyanide with isocyanates and carbodiimides

AUTHOR(S): Inaba, Shinichi; Ojima, Iwao

CORPORATE SOURCE: Sagami Chem. Res. Cent., Kanagawa, 229, Japan

SOURCE: Journal of Organometallic Chemistry (1979), 169(2), 171-84

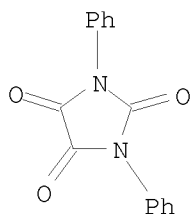
CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal

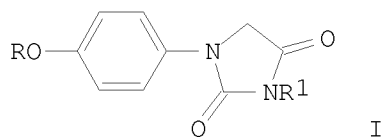
Updated Search

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LANGUAGE: English  
OTHER SOURCE(S): CASREACT 91:5283  
AB Me3SiCN reacts with isocyanates to give 1:2 cycloadducts, 5-(trimethylsilylimino)imidazolidine-2,4-diones, in high yield. The reaction of Me3SiCN with carbodiimides proceeded in the presence of a catalytic amount of AlCl3 to afford 1:1 adducts N-trimethylsilyl-1-cyanoformamidines. At rather high temps., the reaction also proceeded without catalyst. The adducts were further allowed to react with isocyanates and carbodiimides to yield 4-imino-5-(trimethylsilylimino)imidazolidine-2-ones and 2,4-diimino-5-(trimethylsilylimino)imidazolidines, resp. The reaction of Me3SiCN with MeNCS gave a novel cycloadduct, 4-cyano-5-bis(trimethylsilyl)aminoimidazolidine-2-thione.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 319 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:405160 HCAPLUS  
DOCUMENT NUMBER: 91:5160  
ORIGINAL REFERENCE NO.: 91:967a,970a  
TITLE: Synthesis of 1,3-disubstituted hydantoins as possible anticonvulsants  
AUTHOR(S): Joshi, Puran C.; Parmar, Surendra S.; Rastogi, Vinai K.  
CORPORATE SOURCE: Constituent Coll., Kumaon Univ., Almora, India  
SOURCE: Journal of Heterocyclic Chemistry (1979), 16(3), 607-8  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



Updated Search

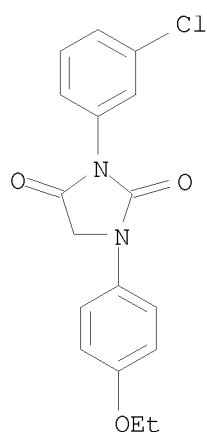
10501317

AB Seven newer 1,3-disubstituted hydantoins I (R = Et, Pr, Bu, H<sub>2</sub>C:CHCH<sub>2</sub>; R<sub>1</sub> = Ph, m-ClC<sub>6</sub>H<sub>4</sub>) were synthesized from p-ROC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> via p-ROC<sub>6</sub>H<sub>4</sub>N(CONHR<sub>1</sub>)CH<sub>2</sub>CO<sub>2</sub>Et (II). The anticonvulsant activity of these I and II was reflected by their ability to provide 28-80% and 30-70% protection, resp., against pentylenetetrazol-induced convulsions in mice. In general, I possessed greater anticonvulsant activity than II.

IT 70350-90-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 70350-90-2 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(3-chlorophenyl)-1-(4-ethoxyphenyl)- (CA INDEX NAME)



L4 ANSWER 320 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:160117 HCAPLUS

DOCUMENT NUMBER: 90:160117

ORIGINAL REFERENCE NO.: 90:25321a,25324a

TITLE: Silver halide color photographic yellow couplers

INVENTOR(S): Kawakatsu, Tetsu; Yamashita, Kiyoshi

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

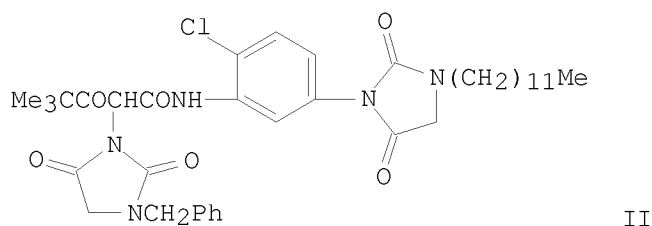
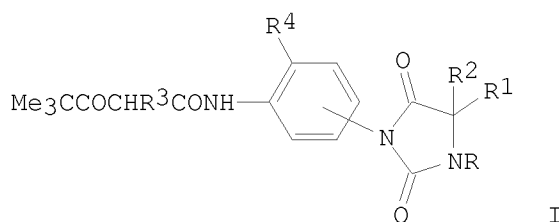
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 53139534	A	19781205	JP 1977-53671	19770512
JP 56007220	B	19810217		
PRIORITY APPLN. INFO.:			JP 1977-53671	A 19770512
GI				

Updated Search



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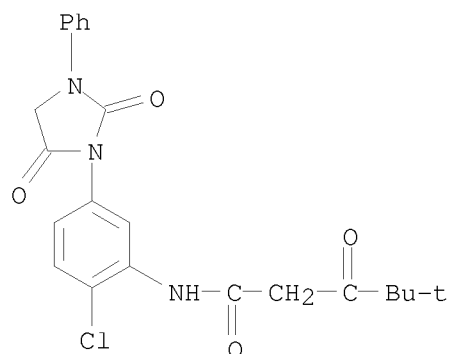
AB Compds. of the general formula I (R, R1, R2 = H, alkyl, aralkyl, aryl; R3 = H, or a group released during color development; R4 = halo, alkyl, alkoxy; the imidazolidinedionyl group is attached to 4- or 5-position of the benzene ring) are used as Ag halide color photog. yellow couplers. The couplers exhibit good dispersion stability (i.e. do not form ppts., etc.) and yield dye images having good light-fastness. Thus, the yellow coupler II 4 + 10<sup>-8</sup> mol was added to a Ag(Br,Cl) emulsion [AgCl 25 mol%; 20 g gelatin, 8 + 10<sup>-3</sup> mol Ag(Br,Cl)] 400 g by using a conventional method and the emulsion was coated on a polyester film support to give a photog. film. The film was sensitometrically exposed and developed to give Dmax of 2.30.

IT 69963-93-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 69963-93-5 HCAPLUS

CN Pentanamide, N-[2-chloro-5-(2,5-dioxo-3-phenyl-1-imidazolidinyl)phenyl]-4,4-dimethyl-3-oxo- (CA INDEX NAME)



L4 ANSWER 321 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

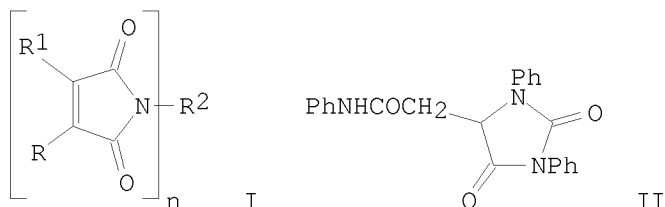
Updated Search

10501317

ACCESSION NUMBER: 1979:103961 HCAPLUS  
DOCUMENT NUMBER: 90:103961  
ORIGINAL REFERENCE NO.: 90:16423a,16426a  
TITLE: (Thio)hydantoin modified with amide groups  
INVENTOR(S): Rottmaier, Ludwig; Merten, Rudolf  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2722513	A1	19781130	DE 1977-2722513	19770518
US 4170701	A	19791009	US 1978-897666	19780419
JP 53132567	A	19781118	JP 1978-46004	19780420
GB 1600343	A	19811014	GB 1978-15645	19780420
FR 2387963	A1	19781117	FR 1978-11942	19780421
PRIORITY APPLN. INFO.:			DE 1977-2718103	A 19770422
			DE 1977-2722513	A 19770518

GI



AB Amide-substituted(thio)hydantoin (optionally polymeric) were prepared by the reaction of the maleimides I [R = R1 = H, aliphatic group; R2 = H, (substituted) (cyclo)aliphatic, aromatic, or araliph. group; n = 1-3] with a primary mono- or polyamine, followed by treatment of the product with an organic mono- or polyiso(thio)cyanate, optionally in the presence of catalysts. Thus, PhNH2 reacted with N-phenylmaleimide, and the product was treated with PhNCO to give II.

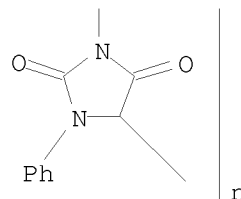
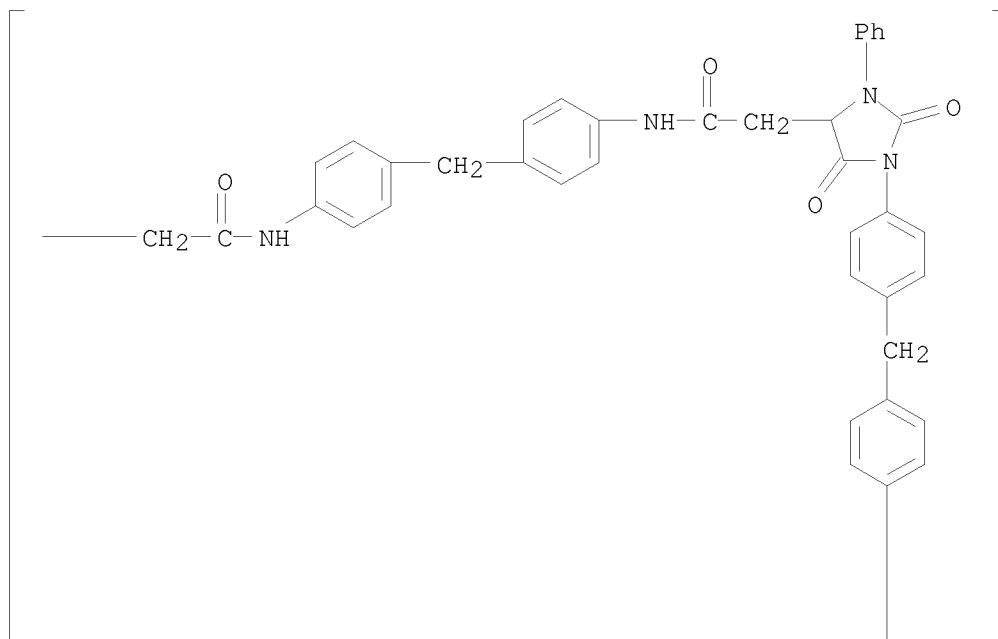
IT 69386-01-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 69386-01-2 HCAPLUS

CN Poly[(2,5-dioxo-3-phenyl-4,1-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-3-phenyl-1,4-imidazolidinediyl)(2-oxo-1,2-ethanediy)imino-1,4-phenylenemethylene-1,4-phenyleneimino(1-oxo-1,2-ethanediy)] (9CI) (CA INDEX NAME)

Updated Search

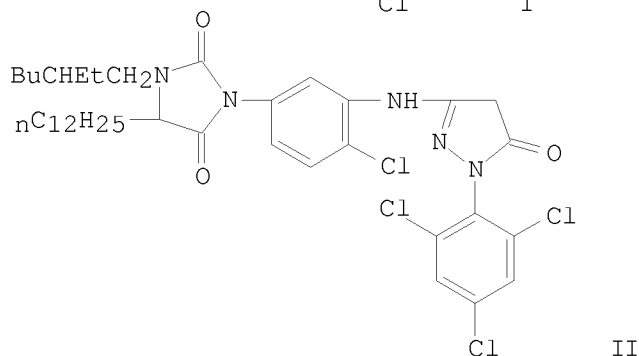
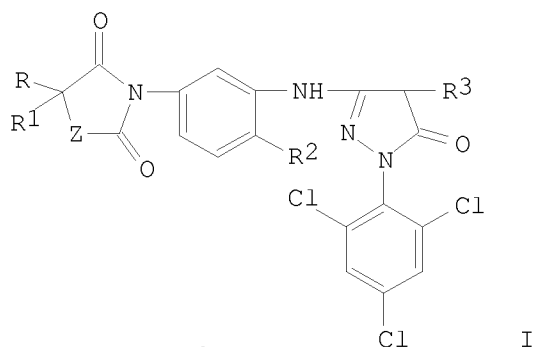


L4 ANSWER 322 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1979:95404 HCAPLUS  
 DOCUMENT NUMBER: 90:95404  
 ORIGINAL REFERENCE NO.: 90:14983a,14986a  
 TITLE: Silver halide color photographic magenta couplers  
 INVENTOR(S): Nakatani, Mamoru; Yamashita, Kiyoshi  
 PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10501317

JP 53075930	A	19780705	JP 1976-151409	19761216
JP 54038498	B	19791121		
PRIORITY APPLN. INFO.:			JP 1976-151409	A 19761216
GI				



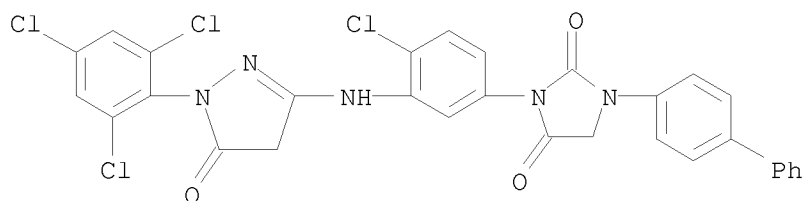
AB Ag halide color photog. magenta couplers have the general structure I [R,R' = H, alkyl, aralkyl, aryl; R2 = H, halogen, C1-4 alkyl, C1-4 alkoxy; R3 = H, or a group released during color development; Z = O, S, NR4 (R4 = H, alkyl, alkenyl, aralkyl, aryl)]. Thus, the magenta coupler II 4 + 10<sup>-3</sup> mol was dissolved in a di-Bu phthalate-AcOEt mixture, dispersed in a gelatin solution, the dispersion was added to a Ag(Br,Cl) emulsion (25 mol% AgCl; 8 + 10<sup>-2</sup> mol Ag halide), a hardening agent was added to the emulsion, and the emulsion was coated on a film support to give a photog. film. The film was sensitometrically exposed and developed to give Dmax and λmax of 3.01 and 534.5 nm. The absorption peak was sharper (i.e. smaller peak width) than the conventional magenta couplers.

IT 69275-90-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 69275-90-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1-[1,1'-biphenyl]-4-yl-3-[4-chloro-3-[[4,5-dihydro-5-oxo-1-(2,4,6-trichlorophenyl)-1H-pyrazol-3-yl]amino]phenyl]- (CA INDEX NAME)

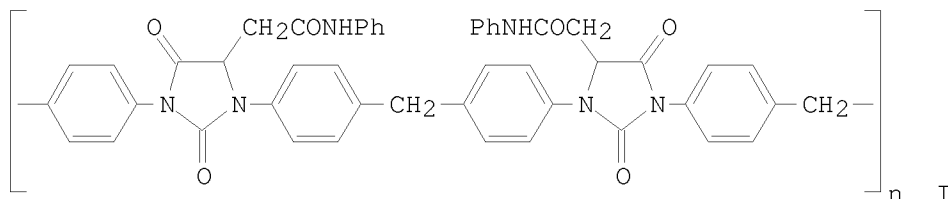
10501317



L4 ANSWER 323 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1979:88904 HCAPLUS  
 DOCUMENT NUMBER: 90:88904  
 ORIGINAL REFERENCE NO.: 90:14099a,14102a  
 TITLE: (Thio)hydantoin modified with amide groups  
 INVENTOR(S): Rottmaier, Ludwig; Merten, Rudolf  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 19 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2718103	A1	19781102	DE 1977-2718103	19770422
US 4170701	A	19791009	US 1978-897666	19780419
JP 53132567	A	19781118	JP 1978-46004	19780420
GB 1600343	A	19811014	GB 1978-15645	19780420
FR 2387963	A1	19781117	FR 1978-11942	19780421
PRIORITY APPLN. INFO.:			DE 1977-2718103	A 19770422
			DE 1977-2722513	A 19770518

GI

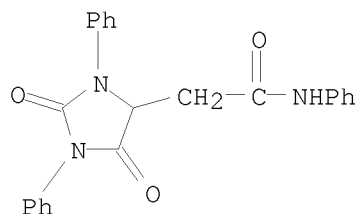


AB The title compds. are prepared by treating maleimides with primary amines and then treating the adducts with isocyanates, and polymerized with polyamines and polyisocyanates to give polymers such as polyhydantoin (I) [68933-00-6]. Thus, 173 parts N-phenylmaleimide [941-69-5] and 99 parts CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-p)<sub>2</sub> were stirred 1 h at 100° in 1 l. AcOH, giving 175 parts precipitated adduct. A solution of 54.4 parts of this adduct in 238 parts cresol was heated with 25 g CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NCO-p)<sub>2</sub> at 35-40°, allowed to stand overnight, mixed with 0.1 g triethylenediamine, and polymerized 6 h at 200°, giving 316 g 25% solution of I, viscosity 700 cP. Baked

Updated Search

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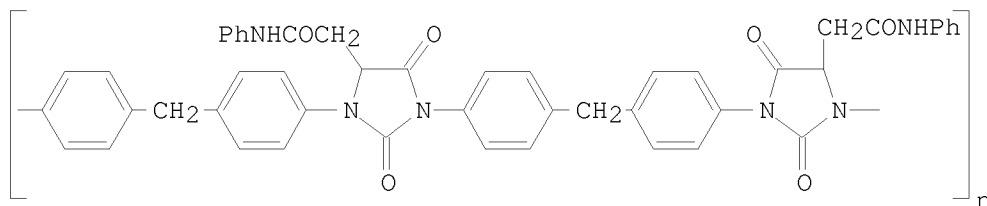
coatings of this composition on sheet metal had very good thermal properties.  
IT 67500-17-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 67500-17-8 HCAPLUS  
CN 4-Imidazolidineacetamide, 2,5-dioxo-N,1,3-triphenyl- (CA INDEX NAME)



L4 ANSWER 324 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:88902 HCAPLUS  
DOCUMENT NUMBER: 90:88902  
ORIGINAL REFERENCE NO.: 90:14099a,14102a  
TITLE: (Thio)hydantoin modified with amide groups  
INVENTOR(S): Rottmaier, Ludwig; Merten, Rudolf  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2718101	A1	19781102	DE 1977-2718101	19770422
US 4169931	A	19791002	US 1978-897683	19780419
JP 53132568	A	19781118	JP 1978-46005	19780420
GB 1600341	A	19811014	GB 1978-15643	19780420
FR 2387961	A1	19781117	FR 1978-11940	19780421
PRIORITY APPLN. INFO.:			DE 1977-2718101	A 19770422

GI



I

Updated Search

10501317

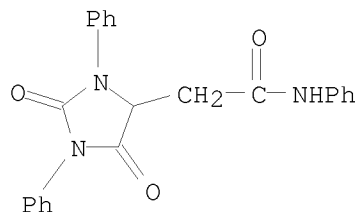
AB Hydantoins containing amide groups are prepared by reaction of maleamic acids with amines and isocyanates, and polymerized with polyamines and polyisocyanates to give polymers such as polyhydantoin (I) [68933-02-8]. Thus, a suspension of 95.5 parts N-phenylmaleamic acid [555-59-9] in 464 parts cresol was treated with 49.5 parts CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-p)<sub>2</sub> in 100 parts PhMe at 100°, stirred 20 h at 100°, treated with 62.5 parts CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NCO-p)<sub>2</sub> in 100 parts PhMe at 0°, stirred 2.5 h at room temperature, treated with 0.1 parts Dabco, and heated 5 h at 160°, giving 6.62 g 30% solution of I, viscosity 333 cP at 25° when diluted to 15%. Baked coatings of I on sheet metal had very good thermal properties and elasticity.

IT 67500-17-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 67500-17-8 HCAPLUS

CN 4-Imidazolidineacetamide, 2,5-dioxo-N,1,3-triphenyl- (CA INDEX NAME)



L4 ANSWER 325 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1979:87896 HCAPLUS

DOCUMENT NUMBER: 90:87896

ORIGINAL REFERENCE NO.: 90:13955a,13958a

TITLE: Synthesis and properties of polyparabanic acid containing phenylene oxide units in the main chain

AUTHOR(S): Koton, M. M.; Kiseleva, T. M.; Kalnins, K.; Krasovskii, A. N.; Kuznetsov, N. P.; Nikolaeva, S. N.

CORPORATE SOURCE: Inst. Vysokomol. Soed., Leningrad, USSR

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1978), 20(11), 803-5

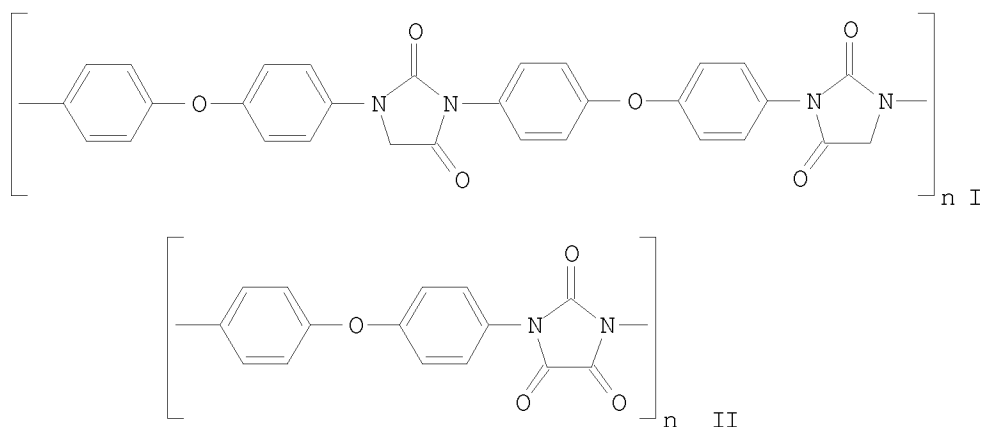
CODEN: VYSBAI; ISSN: 0507-5483

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI

10501317



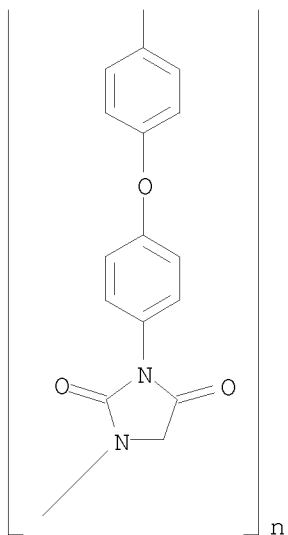
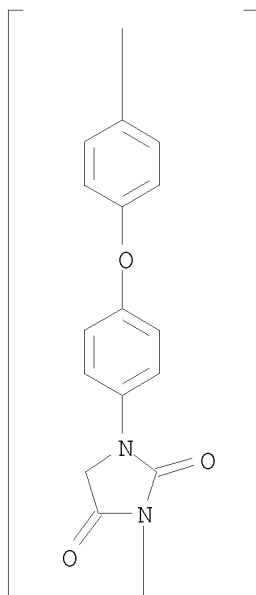
AB The copolymn. of [p-(EtO<sub>2</sub>CCH<sub>2</sub>NH)C<sub>6</sub>H<sub>4</sub>]<sub>2</sub>O with [p-(OCN)C<sub>6</sub>H<sub>4</sub>]<sub>2</sub>O gave a product that was cyclized to a polyhydantoin (I) [31780-83-3]. Oxidation of I in a stream of O at 250-300° gave polyparabanic acid (II). I films had tensile strength 1240 kg/cm<sup>2</sup>, elongation at break 33%, elasticity modulus 32,500 kg/cm<sup>2</sup>, softening temperature 215°, and temperature of 5% weight loss 350°. The corresponding data for II films were 1400 kg/cm<sup>2</sup>, 5%, 39,600 kg/cm<sup>2</sup>, 260°, and 380°.

IT 31780-83-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, properties and oxidation of)

RN 31780-83-3 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



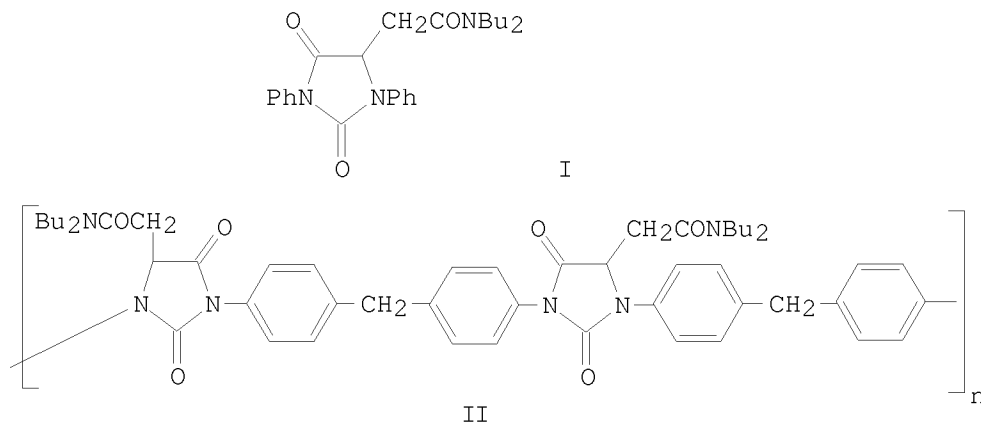


L4 ANSWER 326 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:54938 HCAPLUS  
DOCUMENT NUMBER: 90:54938  
ORIGINAL REFERENCE NO.: 90:8792h,8793a

10501317

TITLE: Hydantoins  
 INVENTOR(S): Zecher, Wilfried; Merten, Rudolf  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 19 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2714655	A1	19781005	DE 1977-2714655	19770401
US 4182812	A	19800108	US 1977-854111	19771123
FR 2385752	A1	19781027	FR 1977-35932	19771129
FR 2385752	B1	19831014		
JP 53124268	A	19781030	JP 1977-142324	19771129
GB 1579443	A	19801119	GB 1977-49601	19771129
AT 7708537	A	19830315	AT 1977-8537	19771129
AT 372690	B	19831110		
US 4281140	A	19810728	US 1979-61061	19790726
PRIORITY APPLN. INFO.:			DE 1977-2714655	A 19770401
			US 1977-854111	A3 19771123
OTHER SOURCE(S):	MARPAT	90:54938		
GI				



AB Hydantoins were prepared by the reaction of organic isocyanates with maleamide derivs. Thus, PhNCO reacted with (Z)-PhNHCOCH:CHCONBu2 in xylene at 50° to give I. The polymeric hydantoin II, useful for the preparation of elastic lacquer films, was prepared by the reaction of (Bu2NCOCH:CHCONHC6H4-p)2CH2 with CH2(C6H4NCO-4)2.

IT 68492-33-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

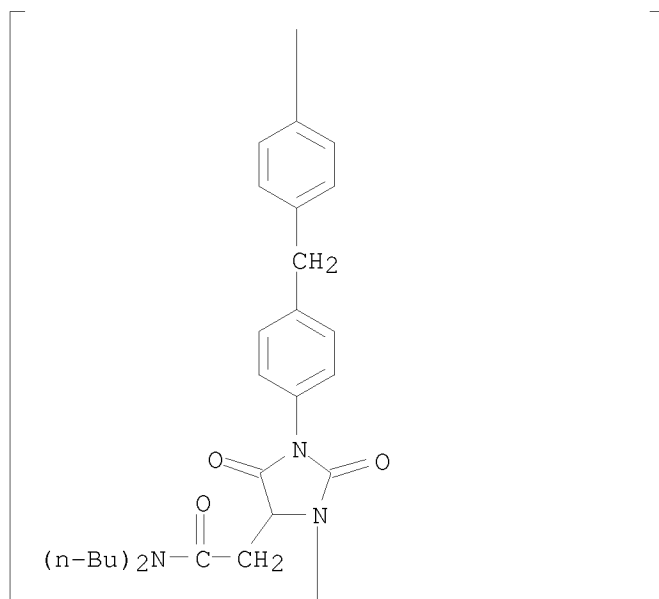
RN 68492-33-1 HCAPLUS

Updated Search

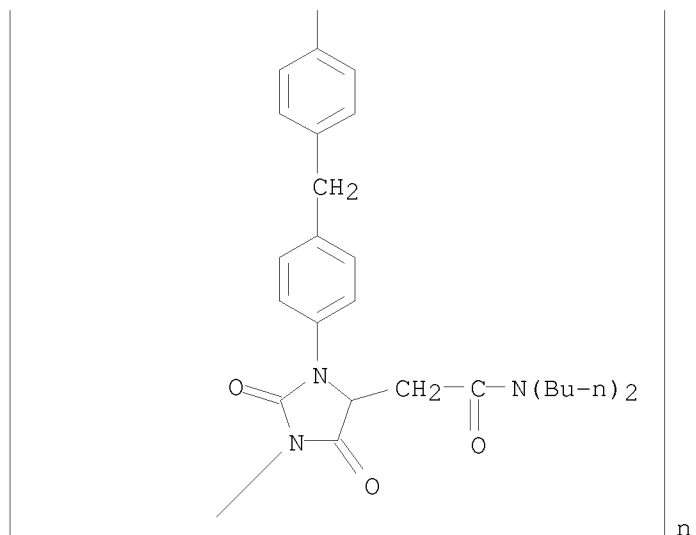
10501317

CN Poly[[4-[2-(dibutylamino)-2-oxoethyl]-2,5-dioxo-1,3-imidazolidinediyl]-1,4-phenylenemethylene-1,4-phenylene[5-[2-(dibutylamino)-2-oxoethyl]-2,4-dioxo-1,3-imidazolidinediyl]-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

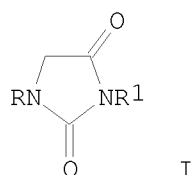


PAGE 2-A

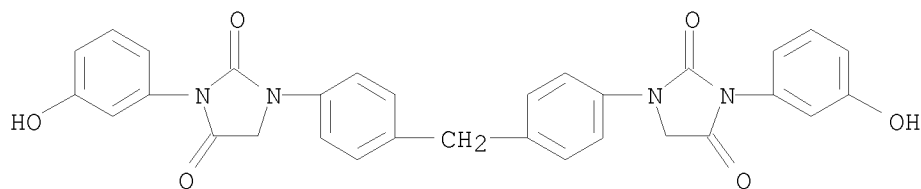


10501317

L4 ANSWER 327 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1979:22920 HCAPLUS  
DOCUMENT NUMBER: 90:22920  
ORIGINAL REFERENCE NO.: 90:3786h,3787a  
TITLE: Novel syntheses of hydantoin derivatives  
AUTHOR(S): Iwata, K.; Hara, S.  
CORPORATE SOURCE: Cent. Res. Inst., Teijin Ltd., Hino, Japan  
SOURCE: Journal of Heterocyclic Chemistry (1978), 15(7),  
1231-4  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



AB N-substituted hydantoin derivs. I (R = H, Ph, Me, 3-, 4-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>; R<sub>1</sub> = Ph, Bu, 4-ClC<sub>6</sub>H<sub>4</sub>, etc.) were prepared by the condensation of an  $\alpha$ -amino acid derivative, a primary amine, and di-Ph carbonate.  
IT 56768-09-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 56768-09-3 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,1'-(methylenedi-4,1-phenylene)bis[3-(3-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 328 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:616333 HCAPLUS  
DOCUMENT NUMBER: 89:216333  
ORIGINAL REFERENCE NO.: 89:33633a,33636a  
TITLE: Flame-resistant polyhydantoin films  
INVENTOR(S): Reese, Eckart; Wank, Joachim; Binsack, Rudolph  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 13 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent

Updated Search

10501317

LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2706125	A1	19780817	DE 1977-2706125	19770214
US 4206110	A	19800603	US 1978-875013	19780203
JP 53101049	A	19780904	JP 1978-14203	19780213
PRIORITY APPLN. INFO.:			DE 1977-2706125	A 19770214

AB The addition of small amts. of ammonium or alkali salts of Cl- or F-containing organic sulfonic acids to high-mol.-weight polyhydantoins improves the flame retardancy of elec. insulating films prepared from the polymers without any adverse effect on their mech. or elec. properties. Thus, a polyhydantoin [68183-30-2] manufactured from 1,5-naphthylene diisocyanate and N,N'-bis[(dicarbethoxy)methyl]-4,4'-diaminodiphenylmethane with relative viscosity 3.2 (2% solution in CH<sub>2</sub>Cl<sub>2</sub>) and average mol. weight 80,000 was dissolved

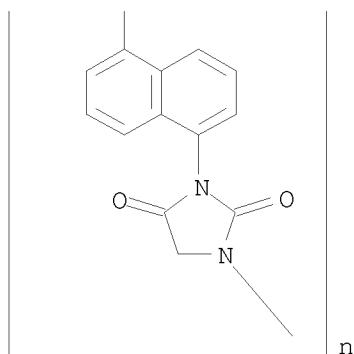
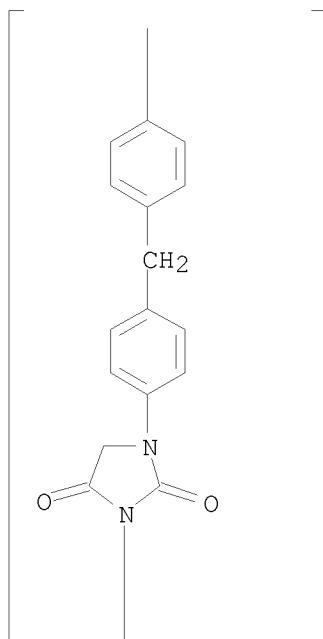
in CH<sub>2</sub>Cl<sub>2</sub> to give a 15% solution which was mixed with 1% K perfluorobutanesulfonate [29420-49-3]. The solution was cast into 0.1 mm-thick films having O index 25% (ATM D 2863-74), Underwriters Labs. flammability rating 0 (VL 94 VTF), tensile strength >100 MPa, breaking elongation >100%, breaking elongation after 10 s in toluene-PrOH >100%, sp. resistance 1 +10<sup>16</sup> Ω cm, dielec. number 3.2 (DIN 53 483), dielec. dissipation factor 32 (tan δ +104), and electrolyte corrosion effect (DIN 53 849) A 1.

IT 68183-52-8

RL: USES (Uses)  
(elec. insulating films, fireproofing agents for, haloalkanesulfonic acid salts as)

RN 68183-52-8 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,5-naphthalenediyl(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

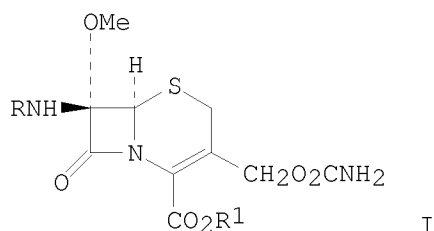


L4 ANSWER 329 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:615320 HCAPLUS  
 DOCUMENT NUMBER: 89:215320  
 ORIGINAL REFERENCE NO.: 89:33457a,33460a  
 TITLE: Cleavage of the aminoadipoyl side chain of cephamycin  
 C to the (6R,7S)-7-amino-7-methoxy derivative  
 AUTHOR(S): Shiozaki, Masao; Ishida, Noboru; Iino, Kimio; Hiraoka,  
 Tetsuo  
 CORPORATE SOURCE: Cent. Res. Lab., Sankyo Co., Ltd., Tokyo, Japan  
 SOURCE: Journal of the Chemical Society, Chemical  
 Communications (1978), (12), 517-18

10501317

DOCUMENT TYPE: JOURNAL  
LANGUAGE: English  
GI

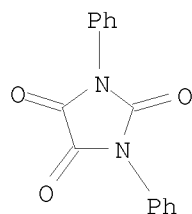
CODEN: JCCCAT; ISSN: 0022-4936



AB The cephemcarboxylate I (R = H, R1 = CHPh2) was prepared from the cephamycin C derivative I [R = CO(CH2)3CH(NHCO2CH2CCl3)CO2CHPh2] by reaction with ClCOCOC1 followed by treatment of the resulting I (R = COCO2H, R1 = CHPh2) (37%) with diphenylcarbodiimide to give 56% I (R = H, R1 = CHPh2). Treatment of I (R = H, R1 = CHPh2) with 2-thiopheneacetyl chloride and then with CF3CO2H gave cefoxitin (I, R = 2-thienylacetyl, R1 = H).

IT 6488-59-1P  
RL: SPN (Synthetic preparation); FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, in preparation of cefotoxin from cephamycin C)

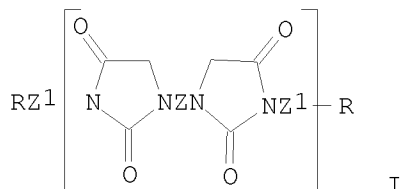
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 330 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:564355 HCAPLUS  
DOCUMENT NUMBER: 89:164355  
ORIGINAL REFERENCE NO.: 89:25483a,25486a  
TITLE: Polyhydantoins containing terminal unsaturated groups  
INVENTOR(S): Iwata, Kaoru; Ogasawara, Makoto; Yoshida, Tsugushi  
PATENT ASSIGNEE(S): Teijin Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

Updated Search

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 53040772	A	19780413	JP 1976-115369	19760928
JP 61037266	B	19860822		
PRIORITY APPLN. INFO.:			JP 1976-115369	A 19760928
GI				



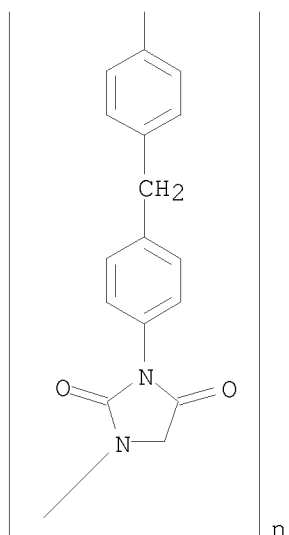
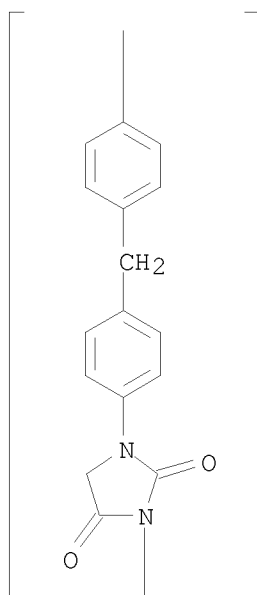
AB Heat-resistant polyhydantoins I [R = maleimido, 3,6-endomethylene-1,2,3,6-tetrahydrophthalimido; Z = 4,4'-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, m-phenylene, (CH<sub>2</sub>)<sub>6</sub>; Z1 = 4,4'-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, 4,4'-C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>, (CH<sub>2</sub>)<sub>6</sub>], were prepared from (a) HO<sub>2</sub>CCH<sub>2</sub>NHZNHCH<sub>2</sub>CO<sub>2</sub>H or their esters [e.g., (p-EtO<sub>2</sub>CCH<sub>2</sub>NHC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CH<sub>2</sub> (II)], (b) H<sub>2</sub>NZ1NH<sub>2</sub>, (c) (PhO)<sub>2</sub>CO, and (d) maleic or carbic anhydride. Optionally, a small amount of 4-(phenoxy carbonyl)phthalic anhydride or 1,2,3,4-butanetetracarboxylic dianhydride was added. Thus, 20 mmol II, 30 mmol 4,4'-diaminodiphenylmethane (III), and 40 mmol (PhO)<sub>2</sub>CO in N-methylpyrrolidinone were heated 3 h at 250° while removing solvent and the mixture was stirred with 20 mmol maleic anhydride in N-methylpyrrolidinone at room temperature Cyclization of the terminal maleamide moiety with Ac<sub>2</sub>O-NaOAc at 60-70° gave 8.3 g corresponding I, which was hardened with 10% III at 250° or with dicumyl peroxide at 200° to give a heat-resistant resin.

IT 31780-80-0D, maleimido-terminated  
 RL: PEP (Physical, engineering or chemical process); PROC (Process) (heat-resistant)

RN 31780-80-0 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



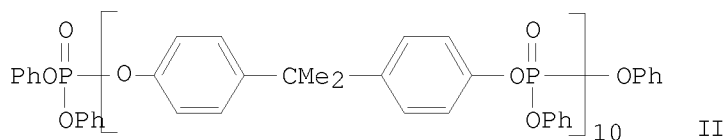
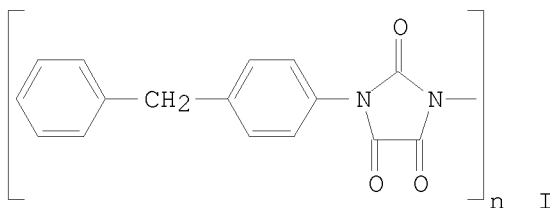


L4 ANSWER 331 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:547619 HCAPLUS  
DOCUMENT NUMBER: 89:147619  
ORIGINAL REFERENCE NO.: 89:22893a,22896a

10501317

TITLE: Fire-resistant parabanic acid polymer compositions  
 INVENTOR(S): Watanabe, Ko; Yamamoto, Noboru; Ichikawa, Yoshinori;  
 Inoue, Hiroshi; Shimakata, Masako  
 PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 53045355	A	19780424	JP 1976-119828	19761007
JP 57057062	B	19821202		
PRIORITY APPLN. INFO.: GI			JP 1976-119828	A 19761007



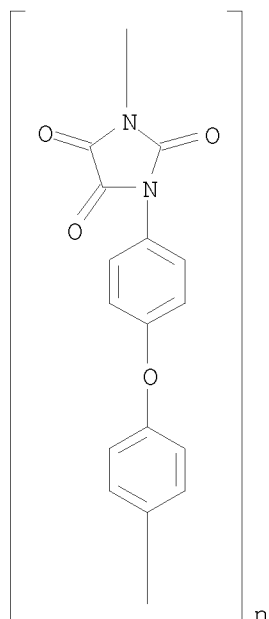
AB A fire-resistant parabanic acid polymer contains polymeric bisphenol Ph phosphates. Thus, a mixture of powdered parabanic acid polymer (I) [37725-18-1] 16, P compound (II) [61261-37-8] 0.5, and DMF 100 parts was degassed, cast on a glass plate and dried 10 min at 150° to give a film, which was dried 10 min at 280°, giving a 50-μ film with limiting O index 29.0%, compared with 21.5% when II was omitted.

IT 31626-60-5  
 RL: POF (Polymer in formulation); USES (Uses)  
 (fireproofing agents for, bisphenol phosphate polymers as)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
 (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 332 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:547618 HCAPLUS

DOCUMENT NUMBER: 89:147618

ORIGINAL REFERENCE NO.: 89:22893a,22896a

TITLE: Fire-resistant parabanic acid polymer compositions

INVENTOR(S): Watanabe, Ko; Yamamoto, Noboru; Ichikawa, Yoshinori;  
Inoue, Hiroshi; Shimakata, Masako

PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

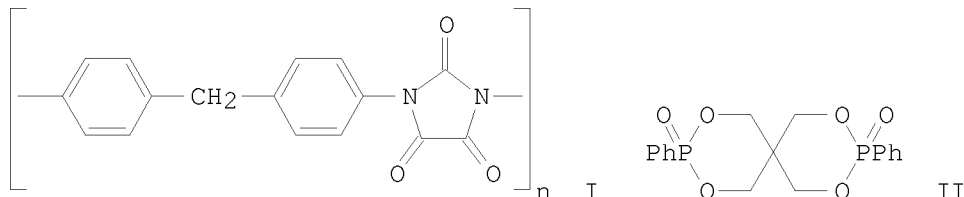
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 53045354	A	19780424	JP 1976-119827	19761007
JP 57057061	B	19821202		
PRIORITY APPLN. INFO.: GI			JP 1976-119827	A 19761007



Updated Search

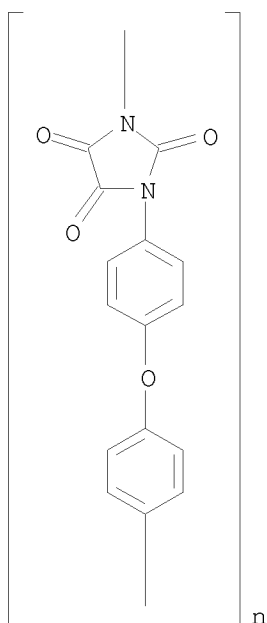
10501317

AB A fire-resistant parabanic acid polymer composition contains pentaerythritol arylphosphonates. Thus, a mixture of powdered parabanic acid polymer (I) [37725-18-1] 16, P compound II [59609-12-0] 0.5, and DMF 100 parts was degassed, cast on a glass plate, and dried 10 min at 150° to give a film, which was dried 10 min at 280°, giving a 50-μ film with limiting O index 29.0%, compared with 21.5% for a I film without II.

IT 31626-60-5  
RL: POF (Polymer in formulation); USES (Uses)  
(fireproofing agents for, pentaerythritol arylphosphonates as)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 333 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:547617 HCAPLUS

DOCUMENT NUMBER: 89:147617

ORIGINAL REFERENCE NO.: 89:22893a,22896a

TITLE: Fire- and heat-resistant parabanic acid polymer compositions

INVENTOR(S): Watanabe, Ko; Yamamoto, Noboru; Ichikawa, Yoshinori; Inoue, Hiroshi; Shimakata, Masako

PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

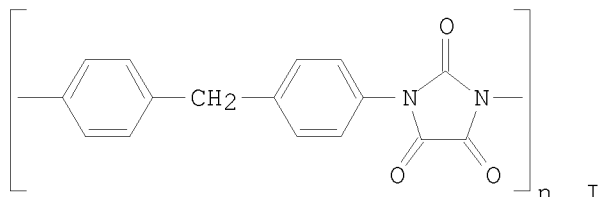
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Updated Search

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53045353	A	19780424	JP 1976-119826	19761007
JP 57057060	B	19821202		
PRIORITY APPLN. INFO.: GI			JP 1976-119826	A 19761007

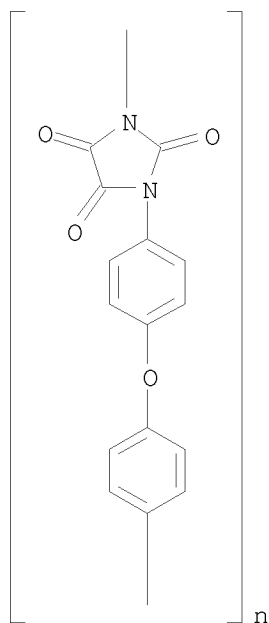


AB A fire- and heat-resistant parabanic acid polymer composition contains brominated Ph2O ( $\geq 6$  Br). Thus, a mixture of powdered parabanic acid polymer (I) [37725-18-1] 16, bis(2,4,6-tribromophenyl) ether (II) [35854-94-5] 0.5, and DMF 100 parts was degassed, cast on a glass plate, and dried 10 min at 150°. The resulting film was dried 10 min at 280° to give a 50- $\mu$  film with heat resistance (200°) 350 h and limiting O index 29.5%, compared with 300 h and 21.5%, resp., for a I film without II.

IT 31626-60-5  
RL: USES (Uses)  
(fire- and heat-resistant, containing bromophenyl ethers)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)

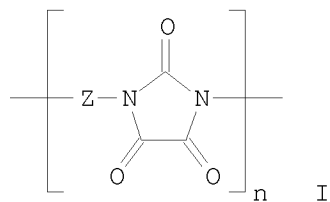


Updated Search

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L4 ANSWER 334 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:513232 HCAPLUS  
DOCUMENT NUMBER: 89:113232  
ORIGINAL REFERENCE NO.: 89:17503a,17506a  
TITLE: Semipermeable membranes  
INVENTOR(S): Harayama, Hiroshi; Nakagawa, Takashi; Maejima, Kazuo  
PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 53011884	A	19780202	JP 1976-86892	19760720
JP 58046323	B	19831015		
PRIORITY APPLN. INFO.:			JP 1976-86892	A 19760720
GI				



AB Semipermeable membranes, prepared from I (Z = oxydiphenylene or methylenediphenylene), are stable at high temps. Thus, a polymer, obtained from a mixture of 4,4'-diphenylmethanediisocyanate, HCN, N-methylpyrrolidinone, and NaCN, was hydrolyzed to I (Z = methylenedi-p-phenylene, n = 326), then its DMF solution was cast to 5μ-thick membranes. With this membrane, 98.2% of the NaCl was removed in the dialysis of a 0.2% NaCl solution

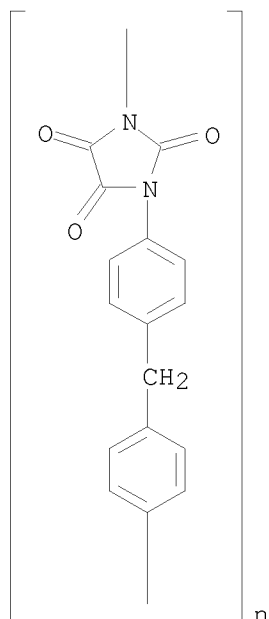
IT 37725-18-1  
RL: USES (Uses)  
(membranes, semipermeable)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

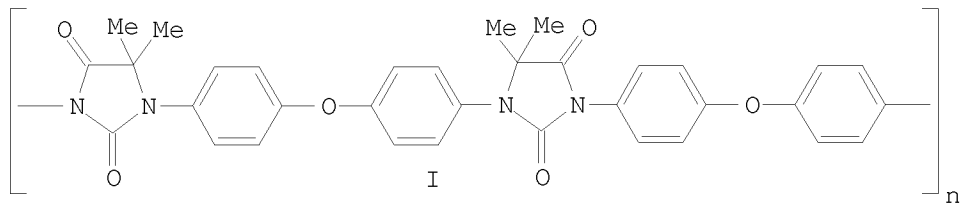
Updated Search

10501317



L4 ANSWER 335 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:511700 HCAPLUS  
 DOCUMENT NUMBER: 89:111700  
 ORIGINAL REFERENCE NO.: 89:17251a,17254a  
 TITLE: Semipermeable membranes  
 INVENTOR(S): Hara, Shigeyoshi; Mori, Ko; Iwata, Kaoru  
 PATENT ASSIGNEE(S): Teijin Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53022875	A	19780302	JP 1976-97419	19760817
JP 59030442	B	19840727		
PRIORITY APPLN. INFO.: GI			JP 1976-97419	A 19760817



Updated Search

10501317

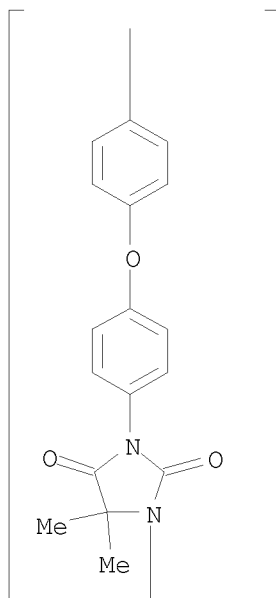
AB Semipermeable membranes were prepared from sulfonated hydantoin polymer (I). For example, a 10% sulfonated I (exchange capacity 2.23 mequiv./g) solution in N-methylpyrrolidone was cast on glass and heated at 130° for 20 min and 210° for 10 min to give a 9.5  $\mu$ -thick membrane. In reverse osmosis of 1% aqueous NaCl using the membranes under 80 kg/cm<sup>2</sup>, water permeability was  $4.9 \times 10^{-4}$  g/cm<sup>2</sup>s and salt rejection 82.7%, even after 312 h of operation.

IT 36247-65-1D, sulfonated  
RL: USES (Uses)  
(semipermeable membranes, for reverse osmosis)

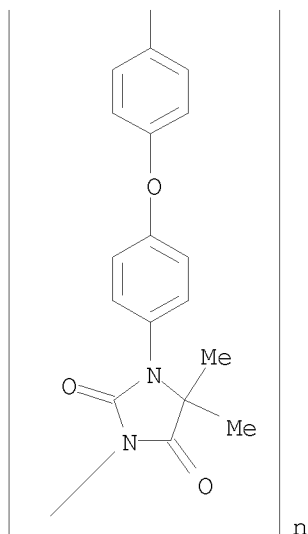
RN 36247-65-1 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



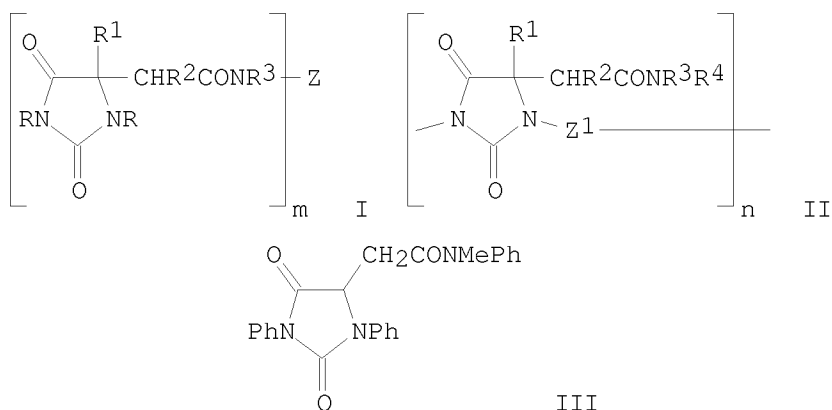




L4 ANSWER 336 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:509496 HCAPLUS  
 DOCUMENT NUMBER: 89:109496  
 ORIGINAL REFERENCE NO.: 89:16881a,16884a  
 TITLE: Hydantoins  
 INVENTOR(S): Zecher, Wilfried; Merten, Rudolf  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 20 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2657560	A1	19780622	DE 1976-2657560	19761218
DE 2657560	C2	19881229		
US 4196274	A	19800401	US 1977-854110	19771123
JP 53077061	A	19780708	JP 1977-142323	19771129
JP 61021228	B	19860526		
FR 2374310	A1	19780713	FR 1977-35931	19771129
FR 2374310	B1	19820618		
GB 1579442	A	19801119	GB 1977-49600	19771129
AT 7708536	A	19820515	AT 1977-8536	19771129
AT 369400	B	19821227		
PRIORITY APPLN. INFO.:			DE 1976-2657560	A 19761218
OTHER SOURCE(S):	MARPAT	89:109496		
GI				

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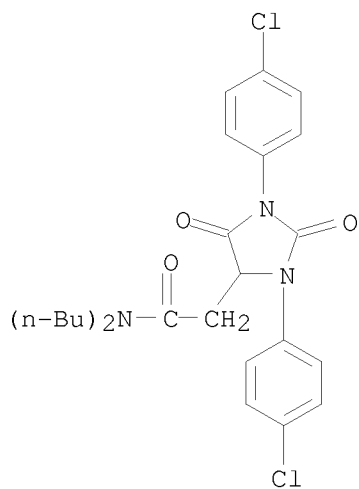
AB The hydantoin I [R = (substituted) aliphatic, cycloaliph., aromatic, or araliph. group; R<sub>1</sub> = R<sub>2</sub> = H, halogen, aliphatic or araliph. group; R<sub>3</sub> = H, aliphatic or araliph. group; Z = alkylene, arylene, etc.; m = 1-3) or the polyhydantoin II (R<sub>1</sub>-R<sub>3</sub> as above, R<sub>4</sub> = R<sub>3</sub>, Z<sub>1</sub> = Z) were prepared by the reaction of a maleamidic acid with an isocyanate. Thus, HO<sub>2</sub>CH:CHCONMePh reacted with PhNCO at 50-150° to give III.

IT 67500-16-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 67500-16-7 HCAPLUS

CN 4-Imidazolidineacetamide, N,N-dibutyl-1,3-bis(4-chlorophenyl)-2,5-dioxo-  
(CA INDEX NAME)



L4 ANSWER 337 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:509236 HCAPLUS  
 DOCUMENT NUMBER: 89:109236  
 ORIGINAL REFERENCE NO.: 89:16825a,16828a  
 TITLE: Syntheses of 1,3-disubstituted 5-

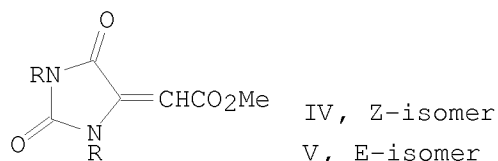
Updated Search

10501317

(methoxycarbonylmethylene)-hydantoins by  
cobalt-catalyzed 1:2 cyclocotrimerization of methyl  
propiolate with isocyanates

AUTHOR(S): Hong, Pangbu; Yamazaki, Hiroshi  
CORPORATE SOURCE: Inst. Phys. Chem. Res., Wako, Japan  
SOURCE: Nippon Kagaku Kaishi (1978), (5), 737-41  
CODEN: NKAKB8; ISSN: 0369-4577

DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
OTHER SOURCE(S): CASREACT 89:109236  
GI



AB The reaction of Me propiolate (I) with isocyanates RNCO (II; R = Me, Bu, Ph,  $\alpha$ -naphthyl, etc.) in the presence of bis( $\eta$ 5-cyclopentadienyl)cobalt(II) (III) or ( $\eta$ 4-cyanomethylcyclopentadiene)( $\eta$ 5-cyclopentadienyl)cobalt(I) gave a mixture of 1,3-disubstituted 5-(methoxycarbonylmethylene)hydantoins IV and V (R as above). The yield of IV increased at higher temperature and at higher concentration of the catalysts.

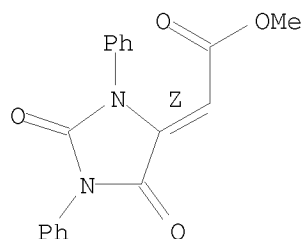
When V (R = Ph) was heated at 125° for 5 h in the presence of III, a 4:1 mixture of IV and V (R = Ph) was obtained. V is a kinetically controlled product and IV is formed by isomerization of V. A mechanism of the reaction is given.

IT 67443-70-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrogenation of)

RN 67443-70-3 HCAPLUS

CN Acetic acid, (2,5-dioxo-1,3-diphenyl-4-imidazolidinylidene)-, methyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

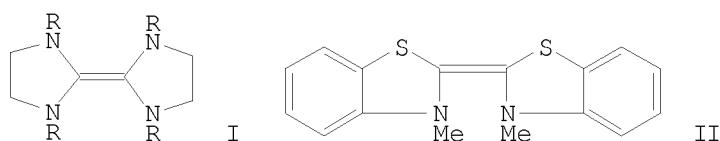


L4 ANSWER 338 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:508498 HCAPLUS

Updated Search

10501317

DOCUMENT NUMBER: 89:108498  
ORIGINAL REFERENCE NO.: 89:16685a,16688a  
TITLE: Reactivity of electron rich olefins, 9. Synthesis of hydroxybenzaldehydes with ethylenetetramines  
AUTHOR(S): Giesecke, Henning; Hocker, Juergen  
CORPORATE SOURCE: Wiss. Hauptlab., Bayer A.-G., Leverkusen, Fed. Rep. Ger.  
SOURCE: Justus Liebig's Annalen der Chemie (1978), (2), 345-61  
CODEN: JLACBF; ISSN: 0075-4617  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 89:108498  
GI



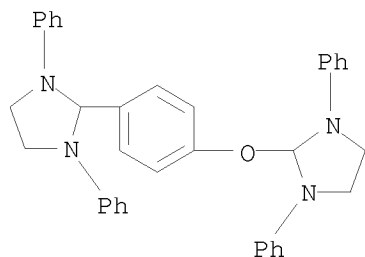
AB Biimidazolidinylidenes I react with phenols to give (2-imidazolidinyl)phenols, which are readily hydrolyzed to the corresponding hydroxybenzaldehydes. The bibenzothiazolylidene II reacts in a similar manner. The cyclic imidazolidinyl group enters para to the phenolic OH group. If the para position is blocked or sterically hindered, the reaction proceeds selectively via the ortho substituted phenols to salicylaldehydes. Incorporation of more than one CHO group in the C<sub>6</sub>H<sub>6</sub> nucleus is achieved with hydroxy- and aminophenols.

IT 53175-51-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrolysis of)

RN 53175-51-2 HCAPLUS

CN Imidazolidine, 2-[4-[(1,3-diphenyl-2-imidazolidinyl)oxy]phenyl]-1,3-diphenyl- (9CI) (CA INDEX NAME)

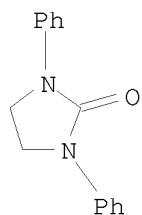


L4 ANSWER 339 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:506929 HCAPLUS  
DOCUMENT NUMBER: 89:106929  
ORIGINAL REFERENCE NO.: 89:16443a,16444a

Updated Search

10501317

TITLE: Determination of inhibitor properties of organic compounds with acetylacetone  
AUTHOR(S): Barkauskas, V.; Lukosaitis, A.  
CORPORATE SOURCE: Kaunas. Politekh. Inst., Kaunas, USSR  
SOURCE: Chem. Chem. Technol., Tech. Mokslu Isvystymo Resp. Ju  
Rezult. Panaudojimo Konf. Medziaga (1975), 117-18.  
Editor(s): Bernatonis, J. Kauno Politech. Inst.:  
Kaunas, USSR.  
CODEN: 37NGA5  
DOCUMENT TYPE: Conference  
LANGUAGE: Lithuanian  
AB Photocolorimetric method of the determination of inhibitor properties of 20 organic compds. (including cyanuric acid, resorcinol, acrylamide, and p-O2NC6H4CO2H) with acetylacetone in Me2CO media is described.  
IT 728-24-5  
RL: PROC (Process)  
(as inhibitor for acetylacetone and acetone, colorimetric determination of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 340 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:444695 HCAPLUS  
DOCUMENT NUMBER: 89:44695  
ORIGINAL REFERENCE NO.: 89:6983a,6986a  
TITLE: Stabilization of high-temperature plastics  
INVENTOR(S): Johnson, Burnett H.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: Ger. Offen., 43 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2610544	A1	19760930	DE 1976-2610544	19760312
US 4022751	A	19770510	US 1975-558178	19750313
CA 1077647	A1	19800513	CA 1976-247706	19760311
BE 839528	A1	19760913	BE 1976-165133	19760312
BE 839529	A1	19760913	BE 1976-165134	19760312
JP 51116846	A	19761014	JP 1976-27593	19760312
JP 56023461	B	19810530		

Updated Search

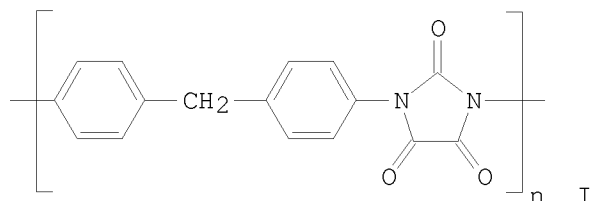
10501317

JP 56059869  
PRIORITY APPLN. INFO.:  
GI

A 19810523

JP 1980-145586  
US 1975-558178

19801017  
A 19750313



AB CuCl<sub>2</sub>, CuBr<sub>2</sub>, Cu(OAc)<sub>2</sub>, COCl<sub>2</sub>, NiCl<sub>2</sub>, Cu(Obz)<sub>2</sub> [533-01-7], and 6 similar salts are used as heat stabilizers for polymers containing arylmethylene groups, such as polymer I [37725-18-1]. Thus, polymer I containing 0.1% CuCl<sub>2</sub> was stable for >150 h at 200°, compared with .apprx.50 h without CuCl<sub>2</sub>.

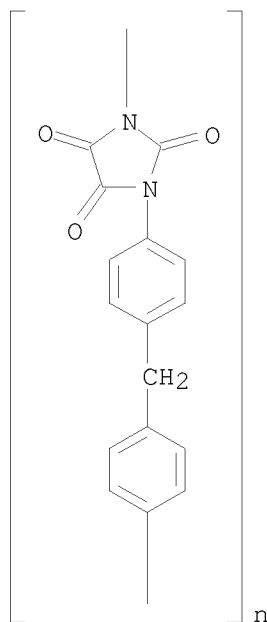
IT 37725-18-1

RL: USES (Uses)

(heat stabilizers for, copper, cobalt, and nickel salts as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



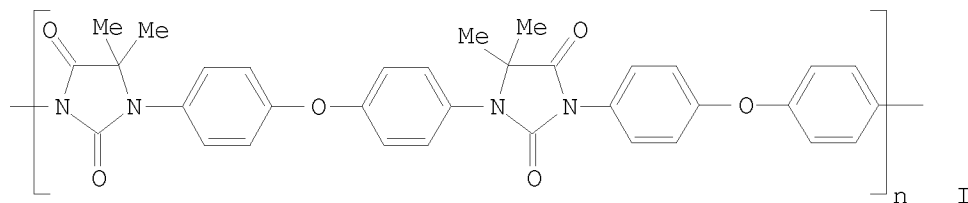
L4 ANSWER 341 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:444598 HCAPLUS  
DOCUMENT NUMBER: 89:444598

Updated Search

10501317

ORIGINAL REFERENCE NO.: 89:6967a,6970a  
TITLE: Hydantoin polymer cation exchangers  
INVENTOR(S): Hara, Shigeyoshi; Iwata, Kaoru; Mori, Ko  
PATENT ASSIGNEE(S): Teijin Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 53023398	A	19780303	JP 1976-97418	19760817
JP 61034455	B	19860807		
PRIORITY APPLN. INFO.: GI			JP 1976-97418	A 19760817

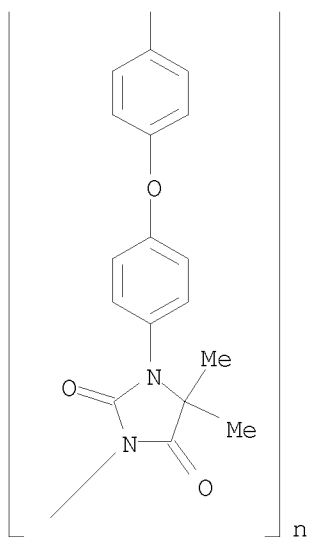
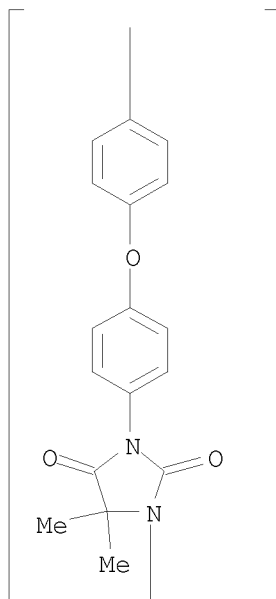


AB Polymers having hydantoin groups and phenylene groups are sulfonated to give cation exchangers. Thus, a solution of 11.8 g of a polymer (I) in 200 mL C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub> and a solution of 9.3 g HSO<sub>3</sub>Cl in 80 mL C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub> were added simultaneously to 80 mL C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub> at 80° for 6 h, stirred 4 h addnl. at 80°, stripped of solvents in vacuo, and purified to give a cation exchanger having ion-exchange capacity 2.23 mequiv/g.

IT 36247-65-1DP, sulfonated  
RL: PREP (Preparation)  
(cation exchangers, manufacture of)

RN 36247-65-1 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



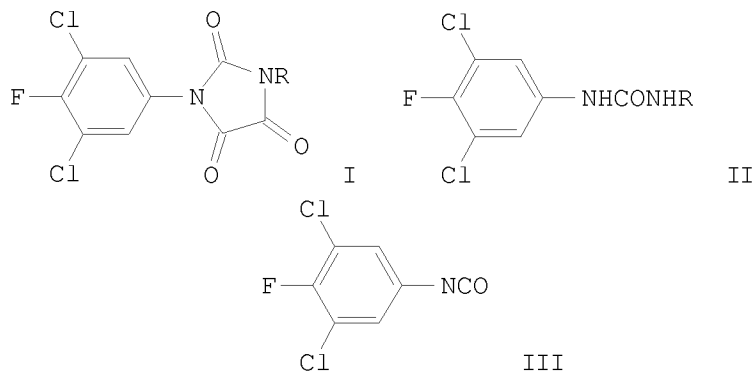
L4 ANSWER 342 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:424303 HCAPLUS  
DOCUMENT NUMBER: 89:24303  
ORIGINAL REFERENCE NO.: 89:3781a,3784a



10501317

TITLE: 3-(3,5-Dichloro-4-fluorophenyl)imidazolidine-2,4,5-triones for use as agricultural fungicides  
INVENTOR(S): Shigematsu, Taichiro; Aizawa, Hiroyasu; Shibahara, Tetsuya; Tomita, Masayuki; Nakazawa, Makoto; Tsuda, Masataka  
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53018569	A	19780220	JP 1976-92865	19760804
PRIORITY APPLN. INFO.: GI			JP 1976-92865	A 19760804



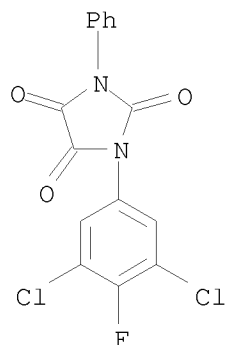
AB Nine antifungal imidazolidinetriones I (R = H, Et, Ph, CO<sub>2</sub>Me, Ac, etc.) were prepared by cyclizing II with (COCl)<sub>2</sub> or acylating I (R = H). Thus, 100 g 3,5-dichloro-4-fluoroaniline in EtOAc saturated with HCl heated with 110.9 g COCl<sub>2</sub> at 60° 1 h gave 80.2% III. III treated with PhNH<sub>2</sub> gave 85.2% II (R = Ph), which (3.0 g) was heated with 1.5 g (COCl)<sub>2</sub> in dioxane 5 h to give 85.0% I (R = Ph), more effective than its 3-(3,4,5-trichlorophenyl) analog against *Botrytis cinerea*, *Pellicularia sasakii*, or *Cochliobolus miyabeanus* in a pot test.

IT 66910-50-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

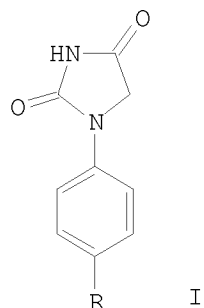
RN 66910-50-7 HCAPLUS

CN Imidazolidinetrione, (3,5-dichloro-4-fluorophenyl)phenyl- (9CI) (CA INDEX NAME)

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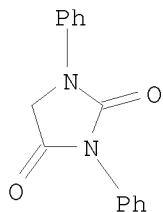
L4 ANSWER 343 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:152500 HCAPLUS  
DOCUMENT NUMBER: 88:152500  
ORIGINAL REFERENCE NO.: 88:24033a,24036a  
TITLE: Novel method for the synthesis of azolidones  
AUTHOR(S): Kochkanyan, R. O.; Israelyan, Yu. A.; Zaritovskii, A. N.  
CORPORATE SOURCE: Inst. Fiz.-Org. Khim. Uglekhim., Donetsk, USSR  
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1978), (1), 87-9  
CODEN: KGSSAQ; ISSN: 0453-8234  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 88:152500  
GI



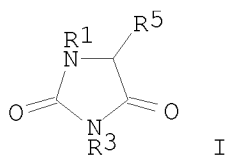
AB Hydantoins I (R = H, Me, MeO, Et, Br, Cl) were obtained in 53-60% yields by cyclocondensation of ClCH<sub>2</sub>CO<sub>2</sub>H, urea, and 4-RC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>. Thiourea, PhNH<sub>2</sub>, and ClCH<sub>2</sub>CO<sub>2</sub>H gave 65% 2,4-thiazolidinedione. Condensation of PhCH<sub>2</sub>NH<sub>2</sub>, urea, and ClCH<sub>2</sub>CO<sub>2</sub>H gave 46% PhCH<sub>2</sub>NHCONHCH<sub>2</sub>Ph.  
IT 3157-03-7P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)

Updated Search

10501317



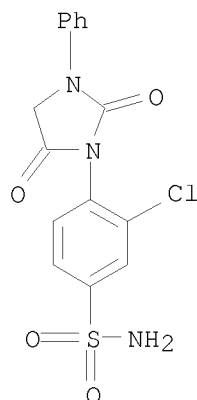
L4 ANSWER 344 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:69084 HCAPLUS  
DOCUMENT NUMBER: 88:69084  
ORIGINAL REFERENCE NO.: 88:10847a,10850a  
TITLE: Development of new antiepileptic drugs. II.  
Anticonvulsant activity of several hydantoin  
derivatives  
AUTHOR(S): Waser, P. G.; Ganz, A. J.; Pfirrmann, R. W.  
CORPORATE SOURCE: Pharmakol. Inst., Univ. Zurich, Zurich, Switz.  
SOURCE: Arzneimittel-Forschung (1977), 27(11), 2125-8  
CODEN: ARZNAD; ISSN: 0004-4172  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI



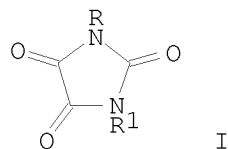
AB Of the 9 N-substituted hydantoin derivs. (I) tested for anticonvulsant,  
analgesic, and sedative properties and acute toxicity only  
1-phenyl-3-(o-chloro-p-sulfonamidophenyl)hydantoin (II) [ 53297-94-2]  
showed significant anticonvulsant effects against  
electroshock seizures in rodents. It also had weak activity against  
pentylenetetrazole seizures and some analgesic and sedative effects. The  
other 8 compds. were considerably less active. The oral LD50 for most of  
the compds. including II was >5000 mg/kg in mice.  
IT 53297-94-2  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)  
(anticonvulsant activity of)  
RN 53297-94-2 HCAPLUS  
CN Benzenesulfonamide, 3-chloro-4-(2,5-dioxo-3-phenyl-1-imidazolidinyl)- (CA  
INDEX NAME)

Updated Search

10501317



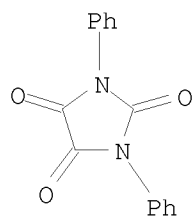
L4 ANSWER 345 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1978:6795 HCAPLUS  
DOCUMENT NUMBER: 88:6795  
ORIGINAL REFERENCE NO.: 88:1153a,1156a  
TITLE: One-pot conversion of 1-monosubstituted  
2,4,5-trioxoimidazolidines into their 3-alkyl or  
3-aryl derivatives  
AUTHOR(S): Orazi, Orfeo O.; Corral, Renee A.; Zinczuk, Juan  
CORPORATE SOURCE: Fac. Cienc. Exactas, Univ. Nac. La Plata, La Plata,  
Argent.  
SOURCE: Synthesis (1977), (9), 641-2  
CODEN: SYNTBF; ISSN: 0039-7881  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 88:6795  
GI



AB The imidazoletriones I (R = Me, R1 = Me3C, cyclohexyl, p-MeC6H4; R = Bu,  
R1 = p-MeC6H4; R = R1 = Ph) were prepared by acetylation of I (R1 = H)  
followed by reaction with R1NH2.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

Updated Search

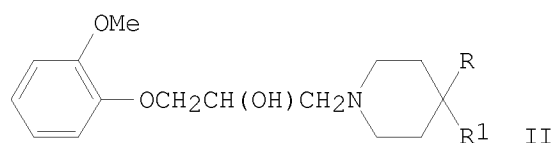
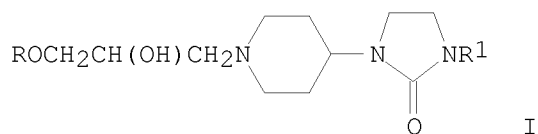
10501317



L4 ANSWER 346 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1977:552208 HCAPLUS  
DOCUMENT NUMBER: 87:152208  
ORIGINAL REFERENCE NO.: 87:24091a,24094a  
TITLE: Piperidinylimidazolidinone derivatives  
INVENTOR(S): Eichenberger, Kurt; Kuehnis, Hans; Ostermayer, Franz;  
Schroeter, Herbert  
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
SOURCE: Ger. Offen., 59 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2701794	A1	19770728	DE 1977-2701794	19770118
NL 7700530	A	19770725	NL 1977-530	19770119
FR 2338940	A1	19770819	FR 1977-1421	19770119
FR 2338940	B1	19800314		
CA 1085398	A1	19800909	CA 1977-270045	19770119
BE 850556	A1	19770720	BE 1977-174221	19770120
DK 7700217	A	19770722	DK 1977-217	19770120
FI 7700190	A	19770722	FI 1977-190	19770120
NO 7700176	A	19770722	NO 1977-176	19770120
SE 7700577	A	19770722	SE 1977-577	19770120
AU 7721491	A	19780727	AU 1977-21491	19770120
AU 512020	B1	19800918		
AU 512020	B2	19800918		
AT 7700333	A	19790815	AT 1977-333	19770120
AT 355570	B	19800310		
GB 1565902	A	19800423	GB 1977-2312	19770120
JP 52105182	A	19770903	JP 1977-5043	19770121
US 4144344	A	19790313	US 1977-761510	19770121
ES 466532	A1	19781001	ES 1978-466532	19780201
AT 7807940	A	19790815	AT 1978-7940	19781106
AT 355576	B	19800310		
US 4217350	A	19800812	US 1978-972589	19781222
PRIORITY APPLN. INFO.:			CH 1976-702	A 19760121
			AT 1977-333	A 19770120
			US 1977-761510	A3 19770121
OTHER SOURCE(S):	MARPAT	87:152208		
GI				

Updated Search



AB The piperidinylimidazolidinones I (R = 2-MeOC6H4, 2-methyl-1H-indol-1-yl; R1 = Ph, 4-ClC6H4, 4-pyridyl, 3-chloro-2-pyrazinyl, etc.) were prepared for use as antihypertensives, antitachycardics and sympatholytics (no data). Thus, 4-piperidone-HCl reacted with 1-(2-methoxyphenoxy)-2,3-epoxypropane to give II (RR1 = O), which mixed with PhNHCH2CH2NH2 and MeOH and hydrogenated to give II (R = NHCH2CH2NHPh, R2 = H) (III). Reaction of COCl2 with III in KOH-PhMe gave I (R = 2-MeOC6H4, R1 = Ph).

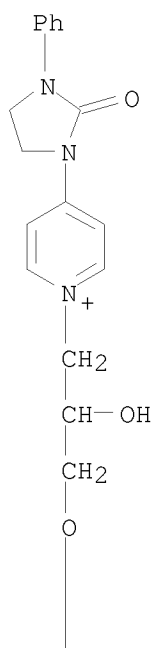
IT 64281-41-0

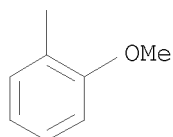
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reduction of)

RN 64281-41-0 HCAPLUS

CN Pyridinium, 1-[2-hydroxy-3-(2-methoxyphenoxy)propyl]-4-(2-oxo-3-phenyl-1-imidazolidinyl)-, bromide (9CI) (CA INDEX NAME)

PAGE 1-A



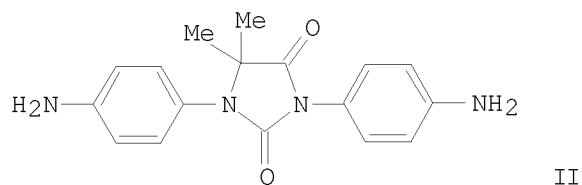
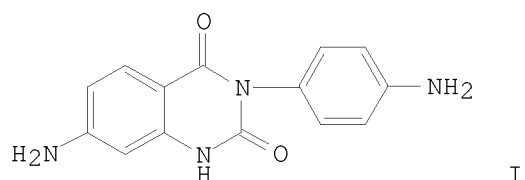


L4 ANSWER 347 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1977:469125 HCAPLUS  
 DOCUMENT NUMBER: 87:69125  
 ORIGINAL REFERENCE NO.: 87:11033a,11036a  
 TITLE: Semipermeable copolyamide membranes  
 INVENTOR(S): Elfert, Klaus; Wolf, Gerhard Dieter; Bentz, Francis;  
 Kuenzel, Hans Egon  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 34 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2554922	A1	19770616	DE 1975-2554922	19751206
GB 1539265	A	19790131	GB 1976-49610	19761129
NL 7613508	A	19770608	NL 1976-13508	19761203
JP 52070990	A	19770613	JP 1976-144877	19761203
AT 7608973	A	19800515	AT 1976-8973	19761203
AT 360048	B	19801210		
CA 1102972	A1	19810616	CA 1976-267137	19761203
BE 849098	A1	19770606	BE 1976-172993	19761206
FR 2333547	A1	19770701	FR 1976-36694	19761206
FR 2333547	B1	19830128		
US 4221903	A	19800909	US 1978-927609	19780724
PRIORITY APPLN. INFO.:			DE 1975-2554922	A 19751206
			US 1976-746728	A1 19761202

GI

10501317



AB The diamines I and II were used with isophthaloyl dichloride (III), m-phenylenediamine (IV) and, in one case, with m-phenylene bis(3-aminobenzoate), to prepare polyamides that were used for reverse osmosis or ultrafiltration membranes. Thus, a copolymer [33503-40-1] was prepared from I 8.1, III 40.6, and IV 18.4 part at water absorption capacity 8.7%, and was used to prepare a reverse osmosis membrane, which had water flux 260 L/m<sup>2</sup>day with 98.2% salt rejection during the desalination of water.

IT 35255-01-7

RL: USES (Uses)

(membranes, for desalination and ultrafiltration)

RN 35255-01-7 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 1,3-benzenediamine and 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

CM 1

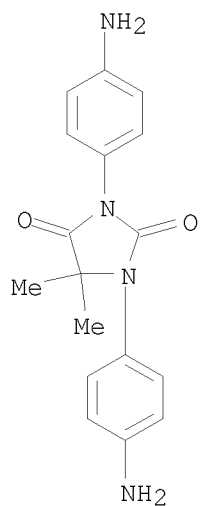
CRN 24689-97-2

CMF C17 H18 N4 O2

Updated Search



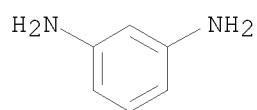
10501317



CM 2

CRN 108-45-2

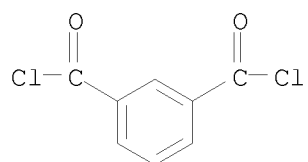
CMF C6 H8 N2



CM 3

CRN 99-63-8

CMF C8 H4 Cl2 O2

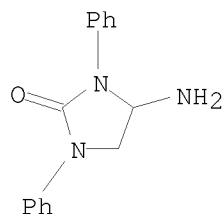


L4 ANSWER 348 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1977:422715 HCAPLUS  
DOCUMENT NUMBER: 87:22715  
ORIGINAL REFERENCE NO.: 87:3581a,3584a  
TITLE: Acyl cyanides. IV. The reduction of  
phenyl-substituted carbamoyl cyanides with metal  
hydrides

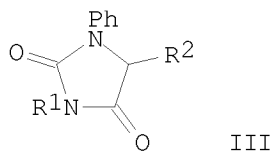
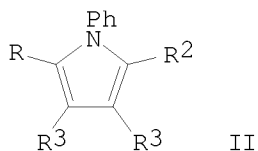
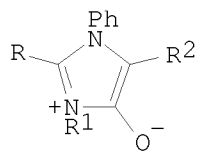
Updated Search

10501317

AUTHOR(S): Oku, Akira; Inoue, Jiro; Ueda, Hiroyuki; Mashio, Fujio  
CORPORATE SOURCE: Dep. Chem., Kyoto Inst. Technol., Kyoto, Japan  
SOURCE: Bulletin of the Chemical Society of Japan (1977),  
50(2), 549-50  
CODEN: BCSJA8; ISSN: 0009-2673  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 87:22715  
AB The reaction of phenylcarbamoyl cyanide with LiAlH<sub>4</sub> or NaBH<sub>4</sub> gave glycine  
anilide, N-phenylethylenediamine, and N-methylaniline. With the latter  
hydride, 4-amino-1,3-diphenyl-2-imidazolidinone was also formed. The  
reduction of diphenylcarbamoyl cyanide with LiAlH<sub>4</sub> gave N-methyldiphenylamine  
as the only reduction product.  
IT 63153-79-7P  
RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, in sodium borohydride reduction of phenylcarbamoyl cyanide)  
RN 63153-79-7 HCAPLUS  
CN 2-Imidazolidinone, 4-amino-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 349 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1977:189796 HCAPLUS  
DOCUMENT NUMBER: 86:189796  
ORIGINAL REFERENCE NO.: 86:29765a,29768a  
TITLE: Mesoionic compounds. 40. A convenient route to the  
anhydro-4-hydroxyimidazolium hydroxide system  
AUTHOR(S): Potts, Kevin T.; Chen, Samuel J.  
CORPORATE SOURCE: Dep. Chem., Rensselaer Polytech. Inst., Troy, NY, USA  
SOURCE: Journal of Organic Chemistry (1977), 42(9), 1639-44  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 86:189796  
GI



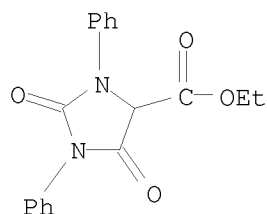
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AB Amidines PhNHCR:NR1 readily condensed with R3CHBrCOC1 in the presence of Et3N in Et2O at room temperature to give 32-77% derivs. I (R = MeS, R1 = Ph, R2 = Ph, CO2Et; R = R1 = Ph, R2 = Ph, CO2Et; R = Ph, R1 = Me, R2 = Ph, CO2Et) of the title mesoionic system. Some of these underwent 1,3-dipolar cycloaddn. with acetylenic dipolarophiles to give 55-87% pyrroles II (R = MeS, R2 = Ph, R3 = CO2Me, CO2H, Bz; R = Ph, R2 = CO2Et, R3 = CO2Me, Bz). I was easily hydrolyzed with water to give the corresponding imidazolidinediones III.

IT 56598-97-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and alkaline hydrolysis and decarboxylation of)

RN 56598-97-1 HCAPLUS

CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA INDEX NAME)



L4 ANSWER 350 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:188715 HCAPLUS

DOCUMENT NUMBER: 86:188715

ORIGINAL REFERENCE NO.: 86:29589a,29592a

TITLE: Carbene reactions, IX. The reaction of amide acetals with heterocumulenes

AUTHOR(S): Reiffen, Manfred; Hoffmann, Reinhard W.

CORPORATE SOURCE: Fachber. Chem., Univ. Marburg/Lahn, Marburg, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1977), 110(1), 37-48  
CODEN: CHBEAM; ISSN: 0009-2940

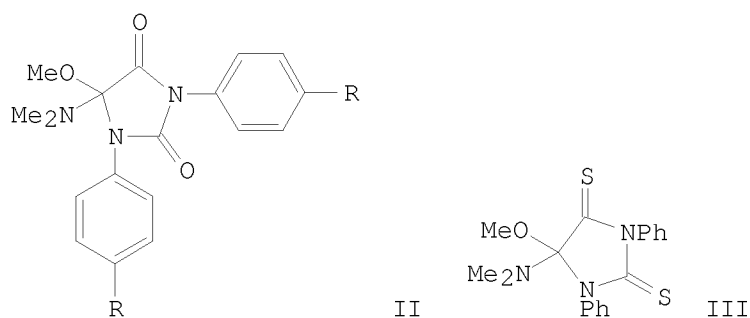
DOCUMENT TYPE: Journal

LANGUAGE: German

GI

Updated Search

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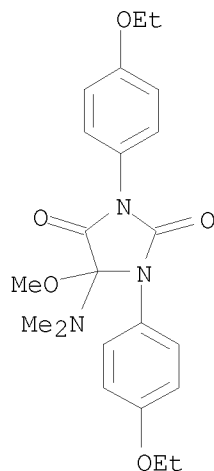
AB Deprotonation of  $(\text{MeO})(\text{Me}_2\text{N})\text{CH}^+$  by NaH liberated the carbene  $(\text{MeO})(\text{Me}_2\text{N})\text{C}$  (I), which was trapped by p-RC<sub>6</sub>H<sub>4</sub>NCO (R = EtO, Me, H) to yield II (R as above) and by PhNCS to yield III. I is assumed to be an intermediate in the corresponding reactions of  $(\text{MeO})_2(\text{Me}_2\text{N})\text{CH}$  which lead to II and III. An equilibrium between  $(\text{MeO})_2(\text{Me}_2\text{N})\text{CH}$  and I is suggested by the reaction of  $(\text{MeO})_2(\text{Me}_2\text{N})\text{CH}$  with S to give  $\text{MeC}(\text{S})\text{NMe}_2$ , and is the basis for mechanistic discussions.

IT 62688-96-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 62688-96-4 HCAPLUS

CN 2,4-Imidazolidinedione, 5-(dimethylamino)-1,3-bis(4-ethoxyphenyl)-5-methoxy- (CA INDEX NAME)



L4 ANSWER 351 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:188714 HCAPLUS

DOCUMENT NUMBER: 86:188714

ORIGINAL REFERENCE NO.: 86:29589a,29592a

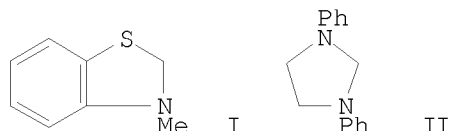
TITLE: Carbene reactions, VIII. Selectivity of nucleophilic carbenes with regard to heterocumulenes

AUTHOR(S): Hoffmann, Reinhard W.; Hagenbruch, Bernd; Smith, David

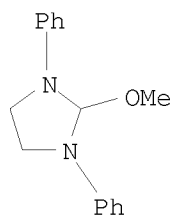
Updated Search

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CORPORATE SOURCE: M.  
Fachber. Chem., Univ. Marburg/Lahn, Marburg, Fed. Rep.  
Ger.  
SOURCE: Chemische Berichte (1977), 110(1), 23-36  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI



AB Product ratios were used to define the selectivities of I and II toward  
RC6H4NCO (R = H, p-Me, m-Me, p-EtO)/PhNCS reactant systems. The  
selectivity ratio RC6H4NCO/PhNCS increased in the order (MeO)2C < I < II.  
IT 25220-17-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with aryl isocyanates and phenyl isothiocyanates)  
RN 25220-17-1 HCAPLUS  
CN Imidazolidine, 2-methoxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 352 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1977:154854 HCAPLUS  
DOCUMENT NUMBER: 86:154854  
ORIGINAL REFERENCE NO.: 86:24311a,24314a  
TITLE: Carbene reactions, X. Ionic intermediates in the  
reaction of trimethyl orthoformate with aryl  
isocyanates  
AUTHOR(S): Hoffmann, Reinhard W.; Reiffen, Manfred  
CORPORATE SOURCE: Fachber. Chem., Univ. Marburg/Lahn, Marburg, Fed. Rep.  
Ger.  
SOURCE: Chemische Berichte (1977), 110(1), 49-52  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 86:154854  
AB The ion pair (MeO)2CH+ PhN-CO2Me is assumed to be the crucial intermediate  
in the reaction of (MeO)3CH with PhNCO; the collapse of the ion pair to

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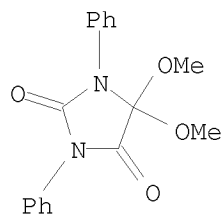
(MeO)2CHNPhCO2Me is a fast subsequent reaction. The acid-base reaction of the ion pair to the carbene (MeO)2C: proceeds with a comparable rate; MeO transfer of the ion pair to form (MeO)3CH is considerably slower.

IT 43109-63-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 43109-63-3 HCAPLUS

CN 2,4-Imidazolidinedione, 5,5-dimethoxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 353 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:107329 HCAPLUS

DOCUMENT NUMBER: 86:107329

ORIGINAL REFERENCE NO.: 86:16949a,16952a

TITLE: Application of the equalized aging process method on thermal endurance testing of polyhydantoin film

AUTHOR(S): Paloniemi, Paavo; Lindstrom, Paul

CORPORATE SOURCE: Oy Stromberg AB, Helsinki, Finland

SOURCE: IEEE Transactions on Electrical Insulation (1977),  
EI-12(1), 67-74

CODEN: IETIAX; ISSN: 0018-9367

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The basic principle of the Equalized Aging Process (EAP) method of thermal endurance testing of solid elec. insulating compns. is to make the test temperature equal to the service temperature by changing the test atmospheric, thus

accelerating all chemical aging processing equally. The test results for dimethylhydantoin-diphenyl ether copolymer [36424-21-2] were in good agreement with EAP theory, showing the same acceleration factor for chemical aging and phys. property degradation. In the tests performed in the conventional atmospheric, there was no common acceleration factor. Only those thermal endurance test results obtained using the EAP method were a reliable basis for calcn. of the useful life of the material at the service temperature

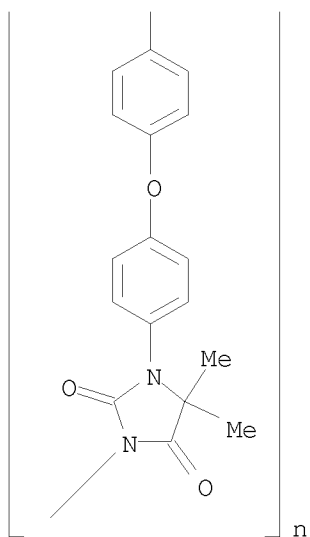
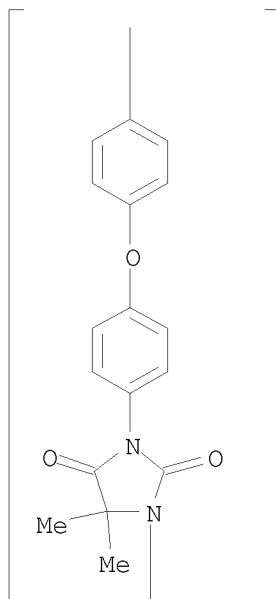
IT 36247-65-1

RL: USES (Uses)  
(elec. insulators, thermal indurance testing of, equalized aging process method for)

RN 36247-65-1 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

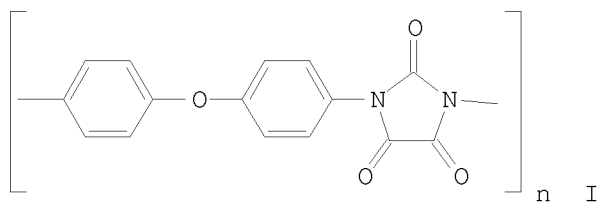


L4 ANSWER 354 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1977:30927 HCAPLUS  
DOCUMENT NUMBER: 86:30927  
ORIGINAL REFERENCE NO.: 86:4949a, 4952a

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TITLE: Moldings of poly(parabanic acids)  
INVENTOR(S): Yamazaki, Takashi; Wada, Shozo; Yoshifuji, Yutaka  
PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 51045166	A	19760417	JP 1974-118038	19741016
JP 57000171	B	19820105		
PRIORITY APPLN. INFO.:			JP 1974-118038	A 19741016
GI				



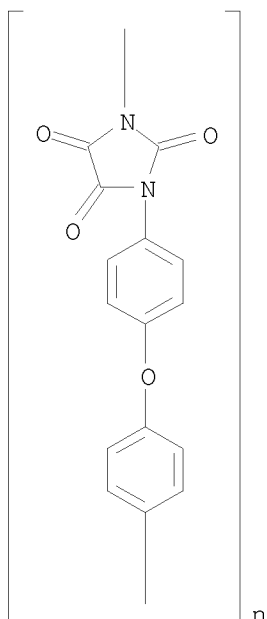
AB Fibers of poly[diphenyl ether-4,4'-diyl(parabanic acid)] (I) [31626-60-5] or poly[diphenylmethane-4,4'-diyl(parabanic acid)] [37725-18-1] having good transparency and strength were prepared by using aqueous polyethylene glycol (II) as coagulation baths. Thus, DMF containing 18% I was extruded into aqueous 80% II to prepare fibers.

IT 31626-60-5  
RL: USES (Uses)  
(fiber, coagulants for, polyethylene glycol as)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)





L4 ANSWER 355 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1977:24465 HCAPLUS

DOCUMENT NUMBER: 86:24465

ORIGINAL REFERENCE NO.: 86:3845a,3848a

TITLE: Relief structures

INVENTOR(S): Rubner, Roland; Kleeberg, Wolfgang; Bartel, Wieland; Kuehn, Eberhard

PATENT ASSIGNEE(S): Siemens A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 9 pp. Addn. to Ger. Offen. 2,308,830.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2437413	A1	19760219	DE 1974-2437413	19740802
DE 2437413	B2	19761007		
DE 2437413	C3	19770630		

PRIORITY APPLN. INFO.: DE 1974-2437413 A 19740802

AB The sensitivity and resolution of radiation-sensitive, soluble polycondensates described in German Patent Application P2,308,830.4, which are used to prepare heat-resistant relief images, can be improved by use of a diamine containing a hydantoinyl group, such as 1,3-bis(p-aminophenyl)-5,5-dimethylhydantoin, as 1 of the reactants. Thus, to pyromellitic dianhydride 21.8 parts in hexamethylphosphoric triamide 150 parts under cooling and stirring was added allyl alc. 11.6 parts, and the solution stirred 4 days at room temperature To this solution at -5 to -10° was then added thionyl chloride 24 parts with further stirring followed by

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1,3-bis(p-aminophenyl)-5,5-dimethylhydantoin in hexamethylphosphoric triamide 150 parts. The prepolymer was then precipitated with water 400 parts and washed with water and MeOH. This prepolymer 5, maleanil 0.5, and Michler's ketone 0.5 parts were dissolved in DMF 26 parts, filtered, and coated on an Al foil at a dry thickness of 1.5  $\mu$ . This foil was then contact exposed for 60 sec at 23 cm using a 500-W Hg lamp and developed in THF- $\gamma$ -butyrolactone (5:1) to give a relief image with a resolving power of <2  $\mu$  (sic) and good edge sharpness. The relief image was then tempered at 300° for 20 min and the resolving power and edge sharpness were observed to be unchanged.

IT 61490-54-8

RL: USES (Uses)

(photoresists compns. containing, heat-resistant)

RN 61490-54-8 HCAPLUS

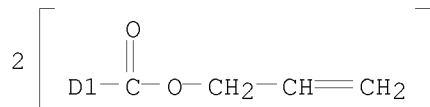
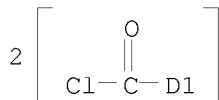
CN Benzenedicarboxylic acid, bis(chlorocarbonyl)-, di-2-propenyl ester, polymer with 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

CM 1

CRN 61475-29-4

CMF C16 H12 C12 O6

CCI IDS

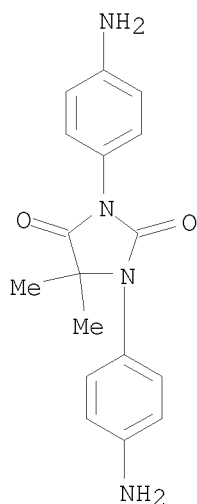


CM 2

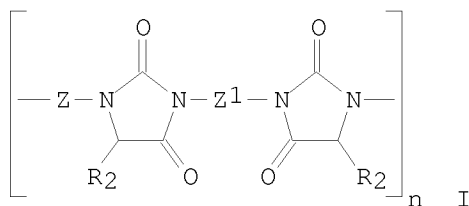
CRN 24689-97-2

CMF C17 H18 N4 O2

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L4 ANSWER 356 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1977:6007 HCAPLUS  
 DOCUMENT NUMBER: 86:6007  
 ORIGINAL REFERENCE NO.: 86:1041a,1044a  
 TITLE: Synthesis, properties, and reactions of polyhydantoins  
 AUTHOR(S): Koton, M. M.; Kiseleva, T. M.; Kalnins, K.;  
 Krasovskii, A. N.; Kuznetsov, N. P.; Nikolaeva, S. N.;  
 Fedorova, G. N.  
 CORPORATE SOURCE: Inst. Vysokomol. Soedin., Leningrad, USSR  
 SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1976),  
 18(9), 2092-6  
 CODEN: VYSAAF; ISSN: 0507-5475  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI



AB Polyhydantoins with the formula I [Z = m-C6H4, p-C6H4OC6H4-p, p-C6H4O-p-C6H4OC6H4-p, p-C6H4O-m-C6H4OC6H4-p, p-C6H4CH2C6H4-p; Z1 = (CH2)6, p-C6H4CH2C6H4-p; R = H, Me] were prepared from (EtO2CCR2NH)2Z and diisocyanates, and thermally stable films and molded products were prepared from I solns. and powders, resp. Tensile strength and elongation of break of I films were 840-1150 kg/cm<sup>2</sup> and 38-113%, resp. I [Z = m-C6H4; Z1 = p-C6H4CH2C6H4-p; R = H] [31671-96-2] and I [Z = m-C6H4; Z1 = p-C6H4CH2C6H4-p; R = Me] [61061-99-2] had the highest thermal

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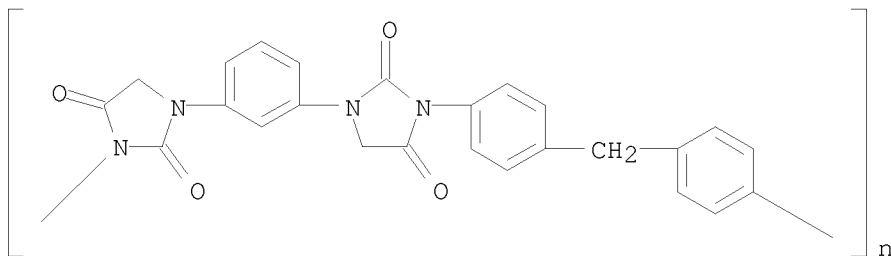
stability. The polyhydantoin films were oxidized by heating to give the corresponding poly(parabanic acids) with the identical mech. properties and relatively high thermal stability.

IT 31671-96-2P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
(preparation and properties of)

RN 31671-96-2 HCAPLUS

CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,3-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 357 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:559004 HCAPLUS

DOCUMENT NUMBER: 85:159004

ORIGINAL REFERENCE NO.: 85:25453a,25456a

TITLE: Carbene reactions, VII. The nucleophilic character of dimethoxycarbene

AUTHOR(S): Hoffmann, Reinhard W.; Reiffen, Manfred

CORPORATE SOURCE: Fachber. Chem., Univ. Marburg, Marburg, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1976), 109(7), 2565-71

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The relative reactivities of aryl isocyanates toward (MeO)<sub>2</sub>C: were 0.30, 0.77, and 1.00 for p-EtOC<sub>6</sub>H<sub>4</sub>NCS, m-MeC<sub>6</sub>H<sub>4</sub>NCS, and PhNCS, resp. A plot of the logarithms of the relative reactivities vs.  $\sigma$  values for the substituents yields a  $\sigma$  value of  $2.0 \pm 0.5$ , indicative of the nucleophilic character of (MeO)<sub>2</sub>C: with regard to the aryl isocyanates.

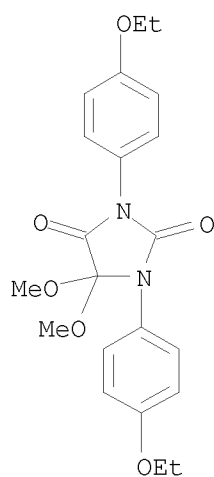
IT 60669-70-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

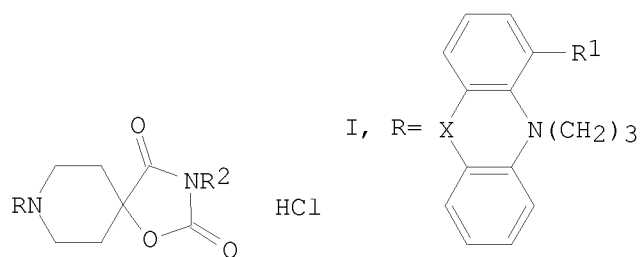
RN 60669-70-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(4-ethoxyphenyl)-5,5-dimethoxy- (CA INDEX NAME)

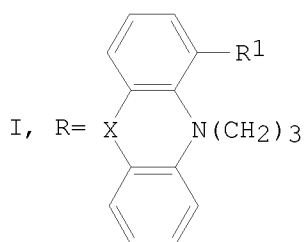
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L4 ANSWER 358 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1976:523838 HCAPLUS  
DOCUMENT NUMBER: 85:123838  
ORIGINAL REFERENCE NO.: 85:19881a,19884a  
TITLE: Studies on psychotropic agents. I. Synthesis of  
3,8-disubstituted 1-oxa-3,8-diazaspiro[4,5]decan-2,4-  
dione derivatives  
AUTHOR(S): Nagai, Yasutaka; Maki, Akio; Kanda, Hisashi; Natsuka,  
Kagayaki; Umemoto, Susumu  
CORPORATE SOURCE: Res. Lab., Dainippon Pharm. Co., Ltd., Suita, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1976), 24(6),  
1179-88  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 85:123838  
GI



HC1



I, R= X N(CH<sub>2</sub>)<sub>3</sub>

II, R=p-FC<sub>6</sub>H<sub>4</sub>CO(CH<sub>2</sub>)<sub>3</sub>

III, R=H

AB Thirteen oxadiazaspiro[4,5]decanediones I (R<sub>1</sub> = Cl, OMe, CF<sub>3</sub>, H; R<sub>2</sub> = Me, Et, Pr, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>Ph, Ph; X = S, CH<sub>2</sub>CH<sub>2</sub>, CH:CH) and II (R<sub>2</sub> = Me, Pr,

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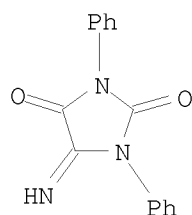
CH<sub>2</sub>Ph, Ph, C<sub>6</sub>H<sub>4</sub>Cl-p) were prepared by treating RCl with the appropriate III.  
I (R<sub>1</sub> = Cl, R<sub>2</sub> = Me, X = S) had excellent central depressant activity.

IT 10319-52-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 10319-52-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-imino-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 359 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:514737 HCAPLUS

DOCUMENT NUMBER: 85:114737

ORIGINAL REFERENCE NO.: 85:18355a,18358a

TITLE: Light-sensitive photographic silver halide recording material and process for its development

PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan

SOURCE: Ger. Offen., 63 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

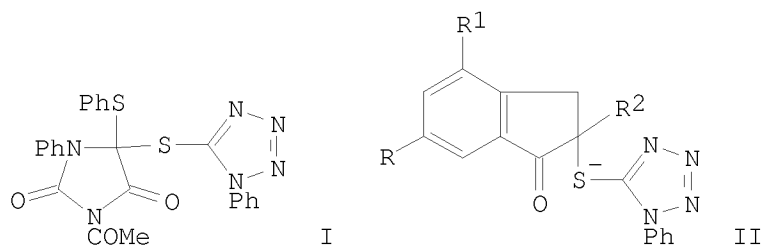
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2529350	A1	19760122	DE 1975-2529350	19750701
DE 2529350	C2	19820311		
JP 51006724	A	19760120	JP 1974-77510	19740706
BE 831035	A1	19760105	BE 1975-158015	19750704
FR 2277359	A1	19760130	FR 1975-21089	19750704
FR 2277359	B1	19790413		

PRIORITY APPLN. INFO.: JP 1974-77510 A 19740706

GI



Updated Search

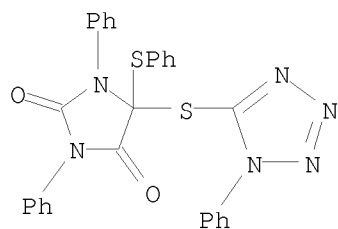
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AB Development inhibitor-releasing compds. I and II (R = H, tert-Bu, dodecylsuccinimido; R1 = H, NO2, CN, 2,4-di-tert-amylphenoxyacetamido; R2 = Br, MeO2C) are described which give improved intra- and interimage effects in photog. emulsions. Thus, a solution was prepared by dissolving I (R = tert-Bu; R1 = NO2; R2 = Br) (III) 1 and 1-(2,4,6-trichlorophenyl)-3-[3-(2,4-di-tert-amylphenoxy acetamido)benzamido]-5-pyrazolone 15g in EtOAc 30 and di-Bu phthalate 15 ml. To this solution was then added a 10% aqueous solution of Alkanol B 20 and a 5% aqueous gelatin solution 200 ml and the mixture emulsified and dispersed in a colloid mill. The resulting dispersion was then added to a gelatin-Ag(Br,I) emulsion, coated on a cellulose triacetate support, and dried. The material was then exposed through a step wedge, developed with a developer containing N,N-dimethyl-p-phenylenediamne HCl, bleached, and fixed to give a magneta dye image having a  $\gamma$  of 0.6 vs. a  $\gamma$  of 0.9 for a III-free control.

IT 60436-83-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 60436-83-1 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-[(1-phenyl-1H-tetrazol-5-yl)thio]-5-(phenylthio)- (CA INDEX NAME)



L4 ANSWER 360 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:421603 HCAPLUS

DOCUMENT NUMBER: 85:21603

ORIGINAL REFERENCE NO.: 85:3541a,3544a

TITLE: 1,3-Disubstituted-5-(N-silylimino)hydantoins

INVENTOR(S): Nagai, Yoichiro; Ojima, Iwao; Inaba, Shinichi

PATENT ASSIGNEE(S): Sagami Chemical Research Center, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

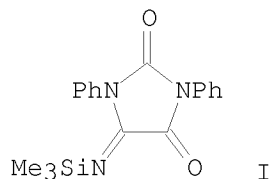
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 50160273	A	19751225	JP 1974-68146	19740617
JP 59039440	B	19840922		
PRIORITY APPLN. INFO.: GI			JP 1974-68146	A 19740617

Updated Search

10501317

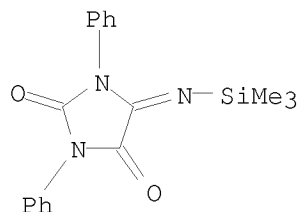


AB 1,3-Disubstituted-5-(N-silylimino)hydantoins were prepared by reaction of isocyanates with cyanosilanes. Thus, a mixture of 2.38 g PhNCO and 0.99 g Me<sub>3</sub>SiCN was stirred 24 hr at 80° under N to give 3.07 I. Similarly, prepared in 79-94% yields were 1,3-di(α-naphthyl)-5-(N-trimethylsilylimino)hydantoin, 1,3-diallyl-5-(N-trimethylsilylimino)hydantoin, and 1,3-dicyclohexyl-5-(N-trimethylsilylimino)hydantoin.

IT 55164-77-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 55164-77-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-[(trimethylsilyl)imino]- (CA INDEX NAME)



L4 ANSWER 361 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:181525 HCAPLUS

DOCUMENT NUMBER: 84:181525

ORIGINAL REFERENCE NO.: 84:29417a,29420a

TITLE: Dyeing wet-spun aromatic polyamides in the gel state

INVENTOR(S): Wolf, Gerhard Dieter; Miessen, Ralf; Kuenzel, Hans E.; Bentz, Francis

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 28 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

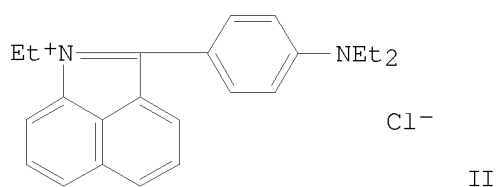
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2438544	A1	19760219	DE 1974-2438544	19740810
DE 2438544	C3	19790802		
DE 2438544	B2	19781130		

Updated Search



10501317

NL 7509438	A	19760212	NL 1975-9438	19750807
US 4059403	A	19771122	US 1975-602783	19750807
BE 832261	A1	19760209	BE 1975-159056	19750808
DK 7503617	A	19760211	DK 1975-3617	19750808
FR 2281452	A1	19760305	FR 1975-24871	19750808
FR 2281452	B1	19790518		
DD 123003	A5	19761112	DD 1975-187773	19750808
ES 440103	A1	19770601	ES 1975-440103	19750808
GB 1505705	A	19780330	GB 1975-33154	19750808
CA 1061505	A1	19790904	CA 1975-233093	19750808
JP 51043419	A	19760414	JP 1975-96734	19750811
PRIORITY APPLN. INFO.:			DE 1974-2438544	A 19740810
GI				



AB Acid-modified heterocyclic polyamide fibers are dyed deep washfast shades by passing gel fibers through an aqueous dyebath containing 0.01-5% cationic dye.

Thus, a polyamide [58990-77-5] spinning dope prepared by treating a solution of 153 parts 3-(p-aminophenyl)-7-amino-2,4-(1H,3H)-quinazolin-2(1H)-one and 10.8 parts Na bis(m-aminophenyl)disulfimide in 860 parts dimethylacetamide (I) with 122 parts isophthaloyl chloride was extruded through a 10 hole nozzle with 0.1 mm-diameter orifices into a 70:30 H<sub>2</sub>O-I coagulation bath at 20°. The fibers were washed in water and fed to a dyebath containing 10 g/l. dye (II). The fibers, emerging from the dyebath in 14 sec, were washed in boiling water and stretched 1.5 times their length. The fibers were dyed a deep washfast shade and had tenacity 3.2-3.5 g/dtex and elongation 6-10%.

IT 36521-57-0

RL: USES (Uses)

(fiber, dyeing of, by cationic dyes, in gel state)

RN 36521-57-0 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 3-amino-N-[(3-aminophenyl)sulfonyl]-4-chlorobenzenesulfonamide monosodium salt and 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

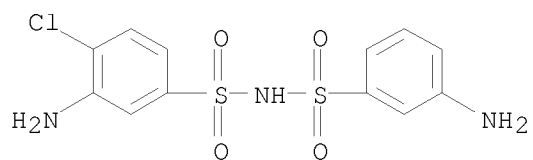
CM 1

CRN 47189-12-8

CMF C12 H12 Cl N3 O4 S2 . Na

Updated Search

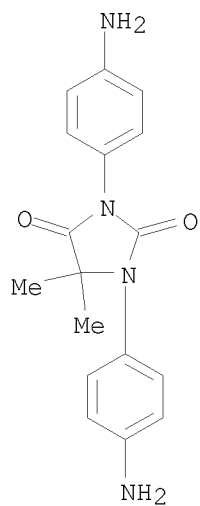
10501317



CM 2

CRN 24689-97-2

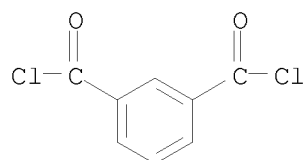
CMF C17 H18 N4 O2



CM 3

CRN 99-63-8

CMF C8 H4 Cl2 O2



L4 ANSWER 362 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

Updated Search

10501317

ACCESSION NUMBER: 1976:181506 HCAPLUS  
DOCUMENT NUMBER: 84:181506  
ORIGINAL REFERENCE NO.: 84:29413a,29416a  
TITLE: High molecular weight copolyamides containing  
hydantoin units  
INVENTOR(S): Wolf, Gerhard Dieter; Kunzel, Hans E.; Blankenstein,  
Guenther; Kleinschmidt, Peter; Bentz, Francis  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: U.S., 8 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3925310	A	19751209	US 1974-466841	19740503
PRIORITY APPLN. INFO.:			US 1973-361526	A2 19730518

AB The moisture absorption capacity of high mol. weight aromatic copolyamides is increased by the incorporation of a small proportion ( $\leq 15$  mole%) of structural units having hydantoin rings. Thus, a mixture of m-phenylenediamine 98.3, 1,3-bis(p-aminophenyl)-5,5'-dimethylhydantoin 27.9, and absolute N-methyl pyrrolidone was cooled to  $-30^{\circ}$  and 203 parts isophthalic acid dichloride was added and the viscous solution stirred several hr at room temperature. The HCl formed was neutralized by 74.1 parts Ca(OH)<sub>2</sub> and the solution wet spun into an aqueous precipitation bath at  $30-40^{\circ}$ . The filaments were drawn 150% in boiling water, washed in H<sub>2</sub>O at  $60^{\circ}$  and drawn another 350% at  $350^{\circ}$ . The yarn had an ultimate breaking strength 2.7-3.0 g/dtex., elongation 10%, and a regain 9.8%.

IT 34110-31-1

RL: USES (Uses)

(fiber, with high moisture regain)

RN 34110-31-1 HCAPLUS

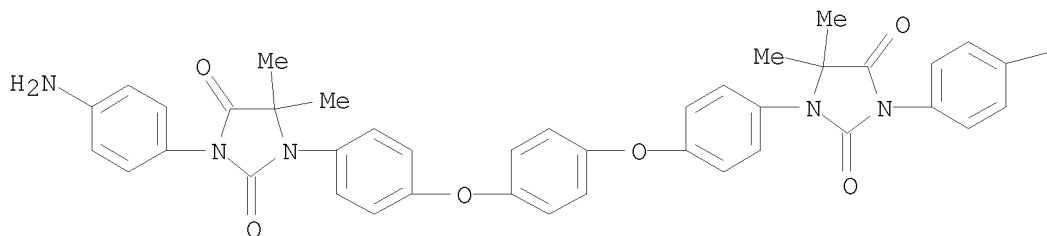
CN 1,3-Benzenedicarbonyl dichloride, polymer with 1,3-benzenediamine and 1,1'-[1,4-phenylenebis(oxy-4,1-phenylene)]bis[3-(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 24802-16-2

CMF C40 H36 N6 O6

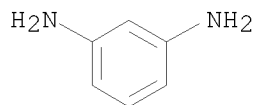
PAGE 1-A





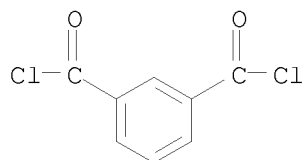
CM 2

CRN 108-45-2  
CMF C6 H8 N2



CM 3

CRN 99-63-8  
CMF C8 H4 Cl2 O2

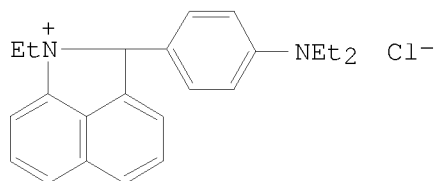


L4 ANSWER 363 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1976:166151 HCAPLUS  
 DOCUMENT NUMBER: 84:166151  
 ORIGINAL REFERENCE NO.: 84:26979a,26982a  
 TITLE: Dyeing dry-spun aromatic polyamides  
 INVENTOR(S): Wolf, Gerhard Dieter; Miessen, Ralf; Kuenzel, Hans E.;  
 Bentz, Francis  
 PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 26 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2438543	A1	19760219	DE 1974-2438543	19740810
DE 2438543	C3	19790719		
DE 2438543	B2	19781116		
NL 7509439	A	19760212	NL 1975-9439	19750807

10501317

US 4078889	A	19780314	US 1975-602678	19750807
BE 832260	A1	19760209	BE 1975-159055	19750808
DK 7503620	A	19760211	DK 1975-3620	19750808
FR 2281451	A1	19760305	FR 1975-24870	19750808
FR 2281451	B1	19790615		
DD 123102	A5	19761120	DD 1975-187770	19750808
ES 440104	A1	19770601	ES 1975-440104	19750808
GB 1511678	A	19780524	GB 1975-33156	19750808
CA 1061506	A1	19790904	CA 1975-233094	19750808
JP 51043420	A	19760414	JP 1975-96735	19750811
PRIORITY APPLN. INFO.:			DE 1974-2438543	A 19740810
GI				



I

AB Acid-modified heterocyclic polyamide fibers are dyed by treating dry-spun fibers, before or during stretching, with aqueous liquors containing cationic dyes. Thus, a polyamide [58990-77-5] spinning dope prepared by treating a solution of 765 parts 3-(p-aminophenyl)-7-amino-2,4(1H,3H)quinazolidinone and 54 parts sodium bis(m-aminophenyl)disulfimide in 4300 parts dimethylacetamide with 610 parts isophthaloyl chloride was extruded through a 72 hole nozzle with 0.2 mm-diameter orifices. The dry-spun fibers were fed, at 5 m/min, into a dyebath containing 10 g/l dye I. After a 14 sec dwell time in the dyebath, the fibers were washed in boiling water and stretched 1.5 times their length to give dyed fibers with tenacity 3.0-3.2 g/dtex and elongation 5%.

IT 34514-79-9

RL: USES (Uses)

(fiber, dyeing of dry-spun, by cationic dyes)

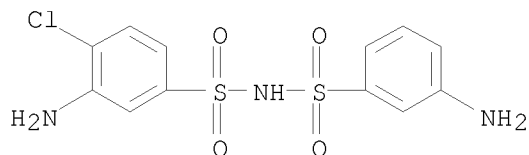
RN 34514-79-9 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 3-amino-N-[(3-aminophenyl)sulfonyl]-4-chlorobenzenesulfonamide and 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

CM 1

CRN 34350-22-6

CMF C12 H12 Cl N3 O4 S2



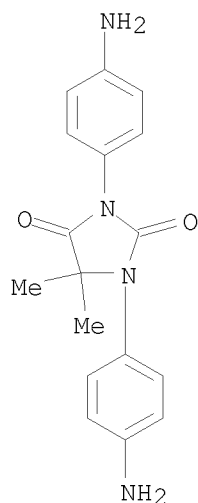
Updated Search

10501317

CM 2

CRN 24689-97-2

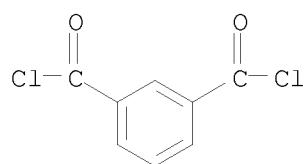
CMF C17 H18 N4 O2



CM 3

CRN 99-63-8

CMF C8 H4 Cl2 O2



L4 ANSWER 364 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:164776 HCAPLUS

DOCUMENT NUMBER: 84:164776

ORIGINAL REFERENCE NO.: 84:26755a,26758a

TITLE: Hydantoin derivatives

INVENTOR(S): Agawa, Toshio; Ohshiro, Yoshiki; Baba, Akio;  
Matsumoto, Masaru

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

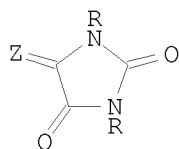
FAMILY ACC. NUM. COUNT: 1

Updated Search

10501317

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50121281	A	19750923	JP 1974-25486	19740305
PRIORITY APPLN. INFO.: GI			JP 1974-25486	A 19740305



I,  $Z = R^1C:CCR^1$

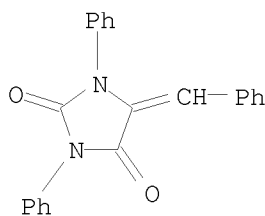
II,  $Z = R^1CH$

AB Aryl isocyanates  $RNCO$  were treated with arylhaloacetylenes  $R^1C \cdot \text{tp} \text{bond} \cdot CX$  in the presence of  $Fe(CO)_5$  to give hydantoins I and II. Thus, 0.05 mole  $PhNCO$ , 0.05 mole  $Fe(CO)_5$  and  $PhC \cdot \text{tp} \text{bond} \cdot CBr$  was stirred at room temperature under  $N_2$  2 hr and  $Fe(CO)_5$  decomposed by heating 2 hr at  $130^\circ$  to give 18% I ( $R = R^1 = Ph$ ) 8% II ( $R = R^1 = Ph$ ) and 48%  $PhC \cdot \text{tp} \text{bond} \cdot CC \cdot \text{tp} \text{bond} \cdot CPh$ .

IT 4514-33-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 4514-33-4 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)- (CA INDEX NAME)



L4 ANSWER 365 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:136259 HCAPLUS

DOCUMENT NUMBER: 84:136259

ORIGINAL REFERENCE NO.: 84:22167a,22170a

TITLE: Hydantoin ring-containing polyols

INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi

PATENT ASSIGNEE(S): Teijin, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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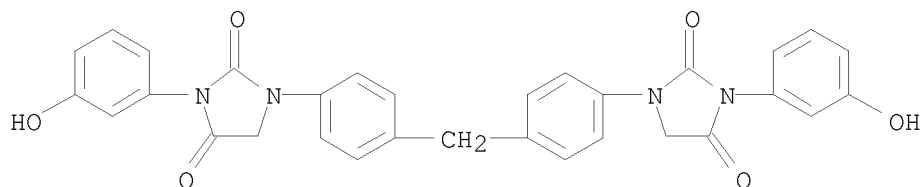
Updated Search

10501317

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JP 50077368      A      19750624      JP 1973-126808      19731113
JP 57053344      B      19821112
PRIORITY APPLN. INFO.:      JP 1973-126808      A 19731113
AB  Hydantoin ring-containing polyols, useful as starting materials for
    heat-resistant polymers, were prepared by heating glyine derivs., primary
    amines, and diaryl carbonates. Thus, a mixture of 4,4'-
    bis(ethoxycarbonylmethylamino)diphenylmethane [10029-23-9] 22.2,
    m-NH2C6H4OH [591-27-5] 13.1, and (PhO)2CO [102-09-0] 25.7 g in cresol was
    stirred at 200° to give 23.3 g product [56768-09-3].
    Diethyl (m-phenylenediimino)diacetate, EtO2CCH2NH(CH2)6NHCH2CO2Et
    [56597-92-3], N-(5-hydroxypentyl)glycine Et ester [40694-05-1], and
    p-HOC6H4OC6H4NHCH2CO2Et-p [56607-64-8], were also used as glycine derivs.
    4-Amino-4'-hydroxydiphenyl ether [3396-01-8], diglycolamine [929-06-6],
    5-aminopentanol [2508-29-4], hexamethylenediamine [124-09-4], and
    4,4'-diaminodicyclohexylmethane [1761-71-3] m-HOC6H4C(NHMe)HCO2Et
    [56768-10-6] were also used as aminoalcs.
IT  56768-09-3P
    RL: PREP (Preparation)
        (preparation of)
RN  56768-09-3  HCAPLUS
CN  2,4-Imidazolidinedione, 1,1'-(methylenedi-4,1-phenylene)bis[3-(3-
    hydroxyphenyl)- (9CI)  (CA INDEX NAME)

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L4  ANSWER 366 OF 527  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:      1976:123056  HCAPLUS
DOCUMENT NUMBER:       84:123056
ORIGINAL REFERENCE NO.: 84:19991a,19994a
TITLE:                  Asymmetric, semipermeable membranes from cyclic
                        polyureas
INVENTOR(S):           Knickel, Birger; Rudolph, Hans; Hocker, Juergen;
                        Lewalter, Juergen; Rosenkranz, Hans J.
PATENT ASSIGNEE(S):    Bayer A.-G., Fed. Rep. Ger.
SOURCE:                 Ger. Offen., 17 pp.
                        CODEN: GWXXBX
DOCUMENT TYPE:          Patent
LANGUAGE:               German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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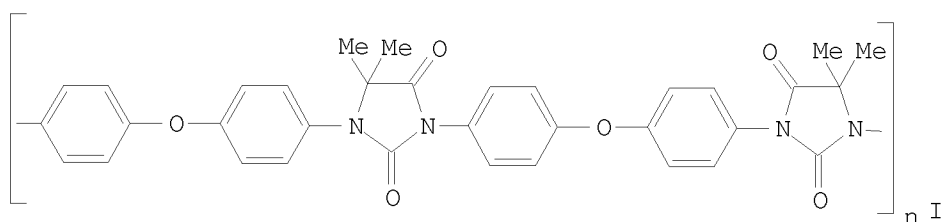
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2431071	A1	19760115	DE 1974-2431071	19740628
DE 2431071	C2	19820304		
GB 1488300	A	19771012	GB 1975-22178	19750522

Updated Search



10501317

NO 7502114	A	19751230	NO 1975-2114	19750613
NO 141458	B	19791210		
NO 141458	C	19800319		
JP 51027880	A	19760309	JP 1975-77055	19750624
JP 58004561	B	19830127		
US 4045337	A	19770830	US 1975-589950	19750624
NL 7507570	A	19751230	NL 1975-7570	19750625
AU 7582429	A	19770106	AU 1975-82429	19750625
BE 830659	A1	19751229	BE 1975-157694	19750626
FI 7501893	A	19751229	FI 1975-1893	19750626
SE 7507346	A	19751229	SE 1975-7346	19750626
SE 403570	C	19781207		
DD 120357	A5	19760612	DD 1975-186910	19750626
AT 7504913	A	19771015	AT 1975-4913	19750626
CA 1052707	A1	19790417	CA 1975-230238	19750626
CH 618452	A5	19800731	CH 1975-8323	19750626
DK 7502937	A	19751229	DK 1975-2937	19750627
DK 145872	B	19830328		
DK 145872	C	19830912		
FR 2276343	A1	19760123	FR 1975-20366	19750627
FR 2276343	B1	19781027		
BR 7504058	A	19760629	BR 1975-5209	19750627
SE 7800543	A	19780117	SE 1978-543	19780117
SE 422004	B	19820215		
SE 422004	C	19820527		
PRIORITY APPLN. INFO.:			DE 1974-2431071	A 19740628
GI				



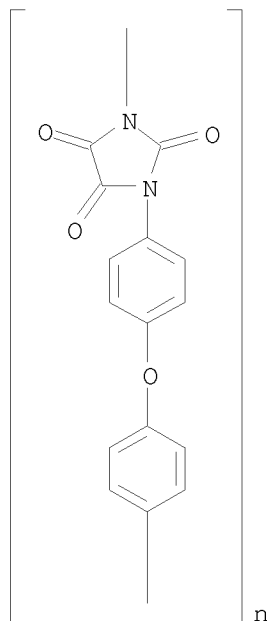
AB Asymmetric, semipermeable reverse osmosis membranes with high thermal stability, pressure sensitivity, and hydrolysis resistance in acid and alkaline media, especially in the range pH 0-4, are prepared from cyclic polyureas, especially polyhydantoin and polyparabanates. Thus, 8 g I in 90 g 1:1 N-methylpyrrolidone-AcNMe<sub>2</sub> was mixed with 1.6 g LiCl, filtered, allowed to stand until free of bubbles, drawn down into a 200 micron film on a glass plate, dried 10 min at 60°, cooled 10 min at room temperature, and soaked 0.5 hr in an icebath. The moist film was then used in a reverse osmosis apparatus, giving a throughput of 250 l./m<sup>2</sup>-day with salt removal of 99.9% for a 3.5% NaCl solution at pH 7 and a working pressure of 130 atms.

IT 31626-60-5  
 RL: USES (Uses)  
 (membranes, for desalination)

Updated Search

10501317

RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 367 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1976:123053 HCAPLUS  
DOCUMENT NUMBER: 84:123053  
ORIGINAL REFERENCE NO.: 84:19991a,19994a  
TITLE: Heat-hardenable and solvent-soluble polymer compositions containing ester groups  
INVENTOR(S): Hara, Shigeyoshi; Yamada, Tateyoshi  
PATENT ASSIGNEE(S): Teijin, Ltd., Japan  
SOURCE: Ger. Offen., 125 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2531094	A1	19760122	DE 1975-2531094	19750711
DE 2531094	C2	19820506		
JP 51008394	A	19760123	JP 1974-78672	19740711
JP 55029099	B	19800801		
JP 51038320	A	19760331	JP 1974-111649	19740930
JP 55042113	B	19801028		
US 4137221	A	19790130	US 1975-593644	19750707
FR 2277861	A1	19760206	FR 1975-21947	19750711
US 4220563	A	19800902	US 1977-847580	19771101

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US 4251649	A	19810217	US 1978-894006	19780406
US 4296218	A	19811020	US 1980-143161	19800423
PRIORITY APPLN. INFO.:			JP 1974-78672	A 19740711
			JP 1974-111649	A 19740930
			US 1975-593644	A3 19750707
			US 1978-894006	A3 19780406

AB Waste linear polyesters are converted to thermosetting, soluble polymers by depolymn. with diaryl carbonates or polyfunctional carboxylic acids, amines, isocyanates, or alcs. to give  $\geq 30$  mole % terminal aryl carboxylate groups and combination with soluble, polyfunctional, monomeric or polymeric amines or alcs. Thus, poly(ethylene terephthalate) [25038-59-9] (intrinsic viscosity 0.64 dl/g) 500, (PhO)<sub>2</sub>CO [102-09-0] 100, and Ti(Obu)<sub>4</sub> 3 g are heated 2 hr at 230-50° with distillation of PhOH and ethylene carbonate and diluted with 820 g cresol to give a polymer solution, inherent viscosity 0.16 dl/g, terminal CO<sub>2</sub>H, CO<sub>2</sub>Ph, and OH groups 0.20, 0.90, and 0.03 mmole/g, resp. Heating this solution with 220 g tris(2-hydroxyethyl) isocyanurate [839-90-7] 1.5 hr at 200° and adding 20 g Ti(Obu)<sub>4</sub> and 200 g xylene gives a 42.5% solids enamel solution, 30° viscosity 18 P, which is coated on 0.3 mm Cu sheet, dried 1 hr at 150°, and baked 2 min at 250° to give a scratch-resistant coating.

IT 58710-23-9

RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinking agents, for depolymd. polyester waste)

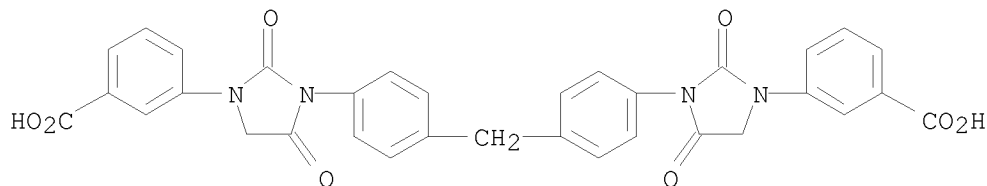
RN 58710-23-9 HCAPLUS

CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] and 3,3'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis[benzoic acid] (9CI) (CA INDEX NAME)

CM 1

CRN 52025-91-9

CMF C33 H24 N4 O8

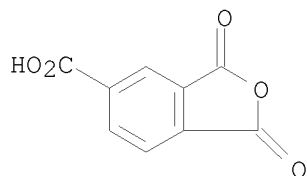


CM 2

CRN 552-30-7

CMF C9 H4 O5

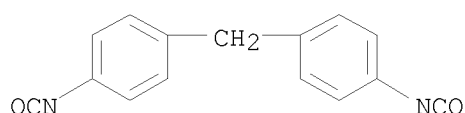
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CM 3

CRN 101-68-8

CMF C15 H10 N2 O2



L4 ANSWER 368 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:121824 HCAPLUS

DOCUMENT NUMBER: 84:121824

ORIGINAL REFERENCE NO.: 84:19781a,19784a

TITLE: Hydantoin derivatives

INVENTOR(S): Agawa, Toshio; Ohshiro, Yoshiki; Baba, Akio;  
Matsumoto, Masaru

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 50117773	A	19750916	JP 1974-26017	19740306
PRIORITY APPLN. INFO.:			JP 1974-26017	A 19740306

GI For diagram(s), see printed CA Issue.

AB Hydantoins I (R = aryl) were catalytically hydrogenated to give II. Thus, I (R = Ph) in EtOH was hydrogenated at 4 atm with Pd-C to give 70% II (R = Ph). PhNCO, Fe(CO)5, N2, and PhC.tplbond.CBr were heated to give 18% I (R = Ph).

IT 56185-29-6P

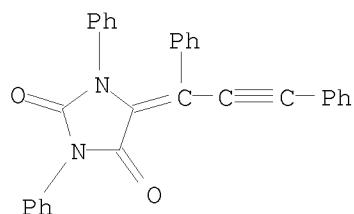
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrogenation of)

RN 56185-29-6 HCAPLUS

CN 2,4-Imidazolidinedione, 5-(1,3-diphenyl-2-propynylidene)-1,3-diphenyl-  
(9CI) (CA INDEX NAME)

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L4 ANSWER 369 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1976:97812 HCAPLUS  
DOCUMENT NUMBER: 84:97812  
ORIGINAL REFERENCE NO.: 84:15867a,15870a  
TITLE: Photographic filter layers  
INVENTOR(S): Sato, Akira; Ikeda, Tadashi; Sueyoshi, Toru; Nakamura, Yasuharu; Shimada, Takeo  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Ger. Offen., 71 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2520834	A1	19751127	DE 1975-2520834	19750509
JP 50145124	A	19751121	JP 1974-51927	19740510
JP 57046542	B	19821004		
CA 1059813	A1	19790807	CA 1975-226556	19750508
US 4028112	A	19770607	US 1975-575878	19750509
GB 1478811	A	19770706	GB 1975-19725	19750509
PRIORITY APPLN. INFO.:			JP 1974-51927	A 19740510

GI For diagram(s), see printed CA Issue.

AB Filter and antihalation layers for color and black-and-white photog. films contain a H<sub>2</sub>O-soluble, gelatin-compatible basic polymerizate in combination with a merocyanine dye (I; R<sub>1</sub> = sulfoalkyl group; R<sub>2</sub> and R<sub>3</sub> = H, Ph or substituted Ph groups, or when R<sub>1</sub> = alkyl, R<sub>2</sub> and R<sub>3</sub> = sulfophenyl groups; m = 0-3; Q = atoms necessary to complete a ketomethylene group-containing ring such as a 5-pyrazolinone, isoxazolone or barbituric acid ring; X = sulfoalkyl, sulfophenyl, carboxyalkyl, dicarboxyphenyl, or disulfophenyl; n = 1-3, such that the total number of carboxy and sulfo groups in the mol. amts. to 2 or 3). The polymerizate may be derived from a dialkylaminoalkyl ester of an ethylenically unsatd. compound or from the addition of a poly(vinyl alkyl ketone) to aminoguanidine. Thus, a solution was prepared from gelatin 40 g, H<sub>2</sub>O 600, poly(diethylaminoethyl methacrylate) 5% aqueous solution 60, di-Na salt of 4-[2-[4,5-diphenyl-3-(3-sulfopropyl)oxazolinylidene]ethylidene]-3-methyl-1-p-sulfophenyl-2-pyrazolin-5-one 1% aqueous solution 100, a hardener 4% aqueous solution 500, and  
PhO(CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>(CH<sub>2</sub>)<sub>4</sub>SO<sub>3</sub>H 40 ml. The solution was coated on a cellulose acetate film support to give a 4 μ filter layer when dry and overcoated with an 8 μ layer (after drying) from a solution of gelatin 40 g, H<sub>2</sub>O 980, and NA dodecylbenzenesulfonate 1% aqueous solution 50 ml. The film was then

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dried for 20 min. Upon removing this 2nd layer by immersion for 5 min with stirring in warm (50°) H<sub>2</sub>O and drying for 10 min, the spectral absorption of the filter layer showed that ≥80% of the dye remained in this layer after separation, i.e. much less of the filter dye had diffused into the gelatin top layer compared to a control containing a conventional dye.

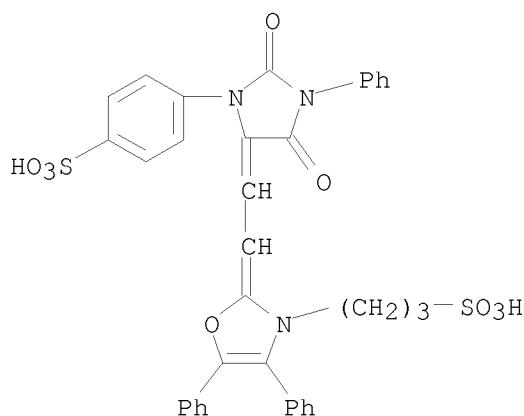
IT 58760-91-1

RL: USES (Uses)

(photog. filter layers containing poly(diethylaminoethyl methacrylate) and)

RN 58760-91-1 HCAPLUS

CN Benzenesulfonic acid, 4-[5-[2-[4,5-diphenyl-3-(3-sulfopropyl)-2(3H)-oxazolyli-  
dene]ethylidene]-2,4-dioxo-3-phenyl-1-imidazolidinyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L4 ANSWER 370 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:90075 HCAPLUS

DOCUMENT NUMBER: 84:90075

ORIGINAL REFERENCE NO.: 84:14700h,14701a

TITLE: Aziridinones. Cycloaddition reaction of aziridinone with phenyl isocyanate

AUTHOR(S): Kakimoto, Masaaki; Kajigaeshi, Shoji; Kanemasa, Shuji

CORPORATE SOURCE: Fac. Eng., Yamaguchi Univ., Ube, Japan

SOURCE: Chemistry Letters (1976), (1), 47-8

CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB BrCHRCONHR1 (R = H, Me, Ph; R1 = Et, CMe<sub>3</sub>, C<sub>6</sub>H<sub>4</sub>Me-p, C<sub>6</sub>H<sub>4</sub>Cl-p) were treated with KOCMe<sub>3</sub> in THF at -50° for 1 hr and the resulting aziridinones (I) treated with PhNCO to give the 1:1 adducts II, characterized by their ir, NMR, and mass spectra.

IT 58532-68-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

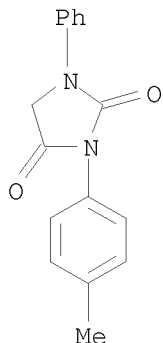
Updated Search

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(preparation of)

RN 58532-68-6 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(4-methylphenyl)-1-phenyl- (CA INDEX NAME)



L4 ANSWER 371 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:60169 HCAPLUS

DOCUMENT NUMBER: 84:60169

ORIGINAL REFERENCE NO.: 84:9921a,9924a

TITLE: Polynitro and polyamine compounds containing hydantoin rings

INVENTOR(S): Hara, Shigeyoshi; Iwata, Kaoru

PATENT ASSIGNEE(S): Teijin, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 50088070	A	19750715	JP 1973-136472	19731208
PRIORITY APPLN. INFO.:			JP 1973-136472	A 19731208

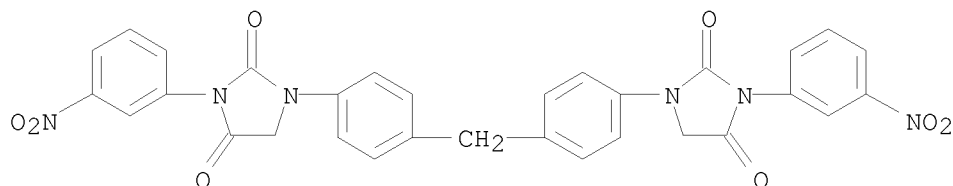
AB Polynitro compds. containing hydantoin rings are prepared by reaction of (O<sub>2</sub>N)<sub>p</sub>R(NHCR<sub>1</sub>R<sub>2</sub>COX)<sub>l</sub> or (O<sub>2</sub>N)<sub>p</sub>R[CR<sub>1</sub>(NHR<sub>3</sub>)COX]<sub>l</sub> [R = (1 + p) valent organic groups, R<sub>1</sub>,R<sub>2</sub>,R<sub>3</sub> = H or monovalent organic groups, X = R<sub>4</sub>O, R<sub>4</sub>S, R<sub>4</sub>NH, R<sub>4</sub>2N (R<sub>4</sub> = H or monovalent organic groups), l = 1-4, p = 0-4], (O<sub>2</sub>N)<sub>q</sub>R(NH<sub>2</sub>)<sub>m</sub> [R = (m + q) valent organic groups, m = 1-4, q = 0-3], and ROCO<sub>2</sub>R<sub>1</sub> (R,R<sub>1</sub> = monovalent aromatic groups). The polynitro compds. could be reduced to the corresponding polyamine compds. The products are starting materials for heat-resistant polymers. Thus, cresol containing N,N'-bis(ethoxycarbonylmethyl)-4,4'-diaminodiphenylmethane (I) [10029-23-9] 3.70, m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (II) [58100-49-5] 2.76, and (PhO)<sub>2</sub>CO [102-09-0] 4.28 g was stirred 5 hr at 220° to give 4.5 g nitrocompd. having hydantoin rings [99-09-2]. N-(m-nitrophenyl)glycine Et ester [3589-58-0] and m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHCO<sub>2</sub>Et [58100-50-8] were also used instead of I. Hexamethylenediamine [124-09-4], 4,4'-diaminodiphenylmethane [101-77-9], and p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> [100-01-6] were also used instead of II.

IT 58100-49-5P

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RL: PREP (Preparation)  
(preparation of)  
RN 58100-49-5 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,1'-(methylenedi-4,1-phenylene)bis[3-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 372 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1976:60168 HCAPLUS  
DOCUMENT NUMBER: 84:60168  
ORIGINAL REFERENCE NO.: 84:9921a,9924a  
TITLE: Nitrocarboxylic acids and aminocarboxylic acids containing hydantoin rings  
INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi  
PATENT ASSIGNEE(S): Teijin, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50088071	A	19750715	JP 1973-137675	19731212

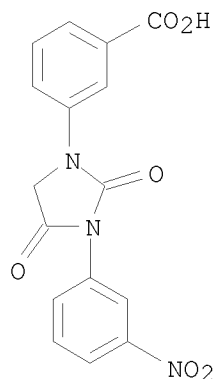
PRIORITY APPLN. INFO.: JP 1973-137675 A 19731212

AB Nitrocarboxylic acids containing hydantoin rings are prepared by reaction of  $RpR1(NHCR2R3COX)1$  or  $RpR1[CR2(NHR4)COX]1$  [ $R = O2N$  or  $HO2C$ ,  $R1 = (1 + p)$  valent organic groups,  $R2, R3, R4 = H$  or monovalent organic groups,  $X = R5O, R5S, R5NH, R52N$  ( $R5 = H$  or monovalent organic groups),  $1 = 1-4, p = 0-4$ ]  $RqR1(NH2)m$  [ $R = O2N$  or  $HO2C$ ,  $R1 = (m + q)$  valent organic residues,  $m = 1-4, q = 0-3$ ], and  $ROCO2R1$  ( $R, R2 =$  monovalent aromatic groups). The nitrocarboxylic acids could be reduced to the corresponding amino acids. The products are starting materials for heat-resistant polymers. Thus, cresol containing  $m$ -(ethoxycarbonylmethylamino)benzoic acid (I) [23218-94-2] 4.46,  $m$ -O2NC6H4NH2 (II) [99-09-2] 2.76, and  $(PhO)2CO$  [102-09-0] 4.28 g was stirred 7 hr at 200° to give 3.1 g nitrocarboxylic acid having hydantoin rings [58100-48-4].  $N$ -( $m$ -nitrophenyl)glycine Et ester [3589-58-0] was also used instead of I. Tranexamic acid [1197-18-8] and  $\epsilon$ -aminocaproic acid [60-32-2] were also used instead of II.

IT 58100-48-4P  
RL: PREP (Preparation)  
(preparation of)  
RN 58100-48-4 HCAPLUS  
CN Benzoic acid, 3-[3-(3-nitrophenyl)-2,4-dioxo-1-imidazolidinyl]- (CA INDEX NAME)



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L4 ANSWER 373 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:45586 HCAPLUS

DOCUMENT NUMBER: 84:45586

ORIGINAL REFERENCE NO.: 84:7497a,7500a

TITLE: Composite material based on poly(parabanic acid)

INVENTOR(S): Wada, Shozo; Hirano, Kazuharu; Yoshifuji, Yutaka

PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan

SOURCE: Ger. Offen., 14 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2514983	A1	19751030	DE 1975-2514983	19750405
JP 50133284	A	19751022	JP 1974-39821	19740410
JP 55031741	B	19800820		
GB 1492474	A	19771123	GB 1975-13325	19750401
CA 1063006	A1	19790925	CA 1975-223620	19750402
BE 827569	A1	19751006	BE 1975-155095	19750404
SE 7504092	A	19751013	SE 1975-4092	19750409
SE 420289	B	19810928		
SE 420289	C	19820114		
FR 2267202	A1	19751107	FR 1975-11074	19750409
FR 2267202	B1	19790727		
NL 7504286	A	19751014	NL 1975-4286	19750410
PRIORITY APPLN. INFO.:			JP 1974-39821	A 19740410

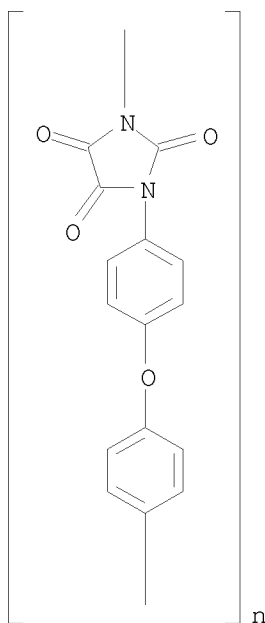
GI For diagram(s), see printed CA Issue.

AB Laminates with improved adhesion, dimensional stability, and solder-resistance, useful in flexible printed circuits, contain metal foils and parabanic acid polymers I (Z = arylene). Thus, a 60 $\mu$  film of I (Z = methylene-di-p-phenylene) [37725-18-1] [inherent viscosity (DMF, 25°) 1.10] containing 20% DMF is bonded to a 35 $\mu$  Cu [7440-50-8] foil for 5 min at 200° and 30 kg/cm<sup>2</sup> and dried 40 min at 250-80° to give a laminate with solder resistance  $\geq$ 1 min at 270°, ( $\geq$ 1 min at 250° after 1 day at 40°

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and 100% relative humidity) and peel strength 1.6 kg/cm.  
IT 31626-60-5  
RL: USES (Uses)  
(laminates, with copper, for flexible printed circuits)  
RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 374 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1976:44961 HCAPLUS  
DOCUMENT NUMBER: 84:44961  
ORIGINAL REFERENCE NO.: 84:7401a,7404a  
TITLE: Polymers containing divalent hydantoin rings  
PATENT ASSIGNEE(S): Teijin, Ltd., Japan  
SOURCE: Neth. Appl., 116 pp.  
CODEN: NAXXAN  
DOCUMENT TYPE: Patent  
LANGUAGE: Dutch  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 7316064	A	19750527	NL 1973-16064	19731123
PRIORITY APPLN. INFO.:			NL 1973-16064	A 19731123

GI For diagram(s), see printed CA Issue.

AB Hydantoin polymers were prepared from polyfunctional glycine derivative, primary amino group-containing polyfunctional compds., and diarylcarbonates. Thus, N,N'-bis[2-(ethoxycarbonyl)-2-propyl]-4,4'-diaminodiphenyl ether 4.28,

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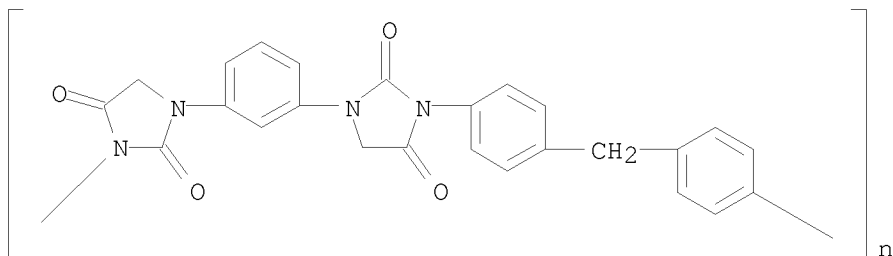
4,4'-diaminodiphenyl ether 2.00, and  $\text{Ph}_2\text{CO}_3$  4.28 g in 15 ml cresol were heated to  $200^\circ$  over 5 hr and then heated 5 hr at  $240^\circ/1$  mm, giving the hydantoin polymer I [36247-65-1], with intrinsic viscosity 0.26 dl/g (N-methylpyrrolidone,  $30^\circ$ ). A film of the polymer had, after heating 5 min at  $300^\circ$ , thickness 53 microns, d. 1.22 g/cm<sup>3</sup>, tensile strength 8.3 kg/mm<sup>2</sup>, elongation 45%, water absorption 3.2% after 24 hr immersion, shrinkage 0 and 3% after 30 min in air at 270 and  $300^\circ$ , resp., and heat distortion temperature  $260^\circ$ .

IT 31671-96-2P

RL: PREP (Preparation)  
(preparation of)

RN 31671-96-2 HCAPLUS

CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,3-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 375 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:17770 HCAPLUS

DOCUMENT NUMBER: 84:17770

ORIGINAL REFERENCE NO.: 84:2957a, 2960a

TITLE: N,N'-Divinylureas. Polymerization studies and spectroscopic investigation of structure

AUTHOR(S): Corfield, G. C.; Crawshaw, A.; Monks, H. H.

CORPORATE SOURCE: Dep. Chem. Biol., Sheffield Polytech., Sheffield, UK

SOURCE: Journal of Macromolecular Science, Chemistry (1975), A9(7), 1085-111

CODEN: JMCHBD; ISSN: 0022-233X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

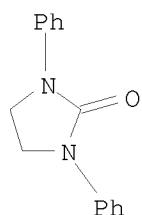
AB Homopolymn. of 1,3-divinyl-2-imidazolidone (I, R, = vinyl) [13811-50-2] and of 1, 3-divinylhexahydro-2-pyrimidinone (II) [28084-37-9] gave crosslinked, insoluble polymers, while that of 1-ethyl-3-vinyl-2-imidazolidone (I, R = Et) [57490-45-6] gave a soluble, linear polymer. 1,3-Diphenyl-1,3-divinylurea [28084-38-0] and 1,3-dimethyl-1,3-divinylurea [57491-89-1] did not polymerize. Spectral evidence indicated conjugation of the electron pairs on the nitrogen atom with the  $\pi$ -electrons of the vinyl and carbonyl double bonds in all the divinylureas, with such conjugation favoring intermol. propagation rather than cyclopolymn. The lack of polymerization of the diphenyldivinylurea was attributed to the formation

of resonance-stabilized free radicals, while that of the dimethyldivinylurea was attributed to steric hindrance. Both these

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comps. hydrolyzed rapidly in aqueous solution to give acetaldehyde and the corresponding urea.

IT 728-24-5  
RL: PRP (Properties)  
(uv spectrum of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 376 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1976:6659 HCAPLUS  
DOCUMENT NUMBER: 84:6659  
ORIGINAL REFERENCE NO.: 84:1123a,1126a  
TITLE: Polyhydantoins and polyparabanic acids  
INVENTOR(S): Duenwald, Willi; Lewalter, Juergen; Merten, Rudolf  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 40 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2404741	A1	19750807	DE 1974-2404741	19740201
DE 2404741	C2	19850704		
BE 824911	A1	19750729	BE 1975-152817	19750129
SE 7501030	A	19750804	SE 1975-1030	19750130
JP 50109294	A	19750828	JP 1975-11991	19750130
US 4005056	A	19770125	US 1975-545380	19750130
AT 347689	B	19790110	AT 1975-699	19750130
CA 1068041	A1	19791211	CA 1975-219020	19750130
NL 7501192	A	19750805	NL 1975-1192	19750131
FR 2259865	A1	19750829	FR 1975-3090	19750131
FR 2259865	B1	19810529		
BR 7500659	A	19751111	BR 1975-659	19750131
ES 434318	A1	19761116	ES 1975-434318	19750131
GB 1484397	A	19770901	GB 1975-4323	19750131
SE 7900886	A	19790201	SE 1979-886	19790201

PRIORITY APPLN. INFO.: DE 1974-2404741 A 19740201

GI For diagram(s), see printed CA Issue.

AB Copolymers containing hydantoin [461-72-3] and parabanic acid [120-89-8] rings were prepared from molten mixts. of I (R = BuO2C (II) and I (R = CMe2CO2Me) (III); mixts. of II, I (R = 3-MeBz) (IV), and I (R = EtO2CCO); mixts. of

Updated Search

10501317

II, III, IV, and a bisphenol-epichlorohydrin copolymer; and other similar monomer mixts., eliminating the use of solvents. The copolymers were useful as durable, heat-resistant coatings, especially for insulating Cu wire. Thus, a 1:1 II-III mixture at 120° was coated on Cu wire and polymerized at 400° to prepared flexible, tough, heat- and chemical-resistant, insulating coatings.

IT 57539-27-2

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, by melt polymerization)

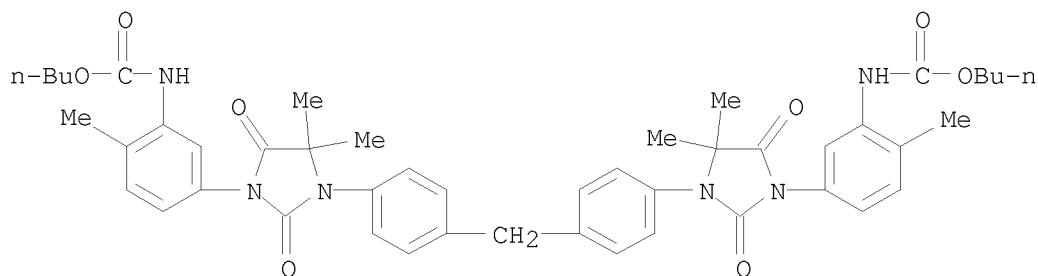
RN 57539-27-2 HCAPLUS

CN Alanine, N,N'-(methylenedi-4,1-phenylene)bis[2-methyl-, dimethyl ester, polymer with dibutyl [methylenebis[4,1-phenylene(4,4-dimethyl-2,5-dioxo-3,1-imidazolidinediyl)(6-methyl-3,1-phenylene)]]bis[carbamate] (9CI) (CA INDEX NAME)

CM 1

CRN 57539-26-1

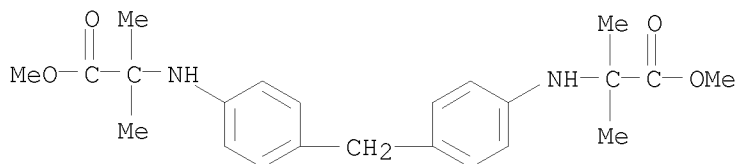
CMF C47 H54 N6 O8



CM 2

CRN 10029-24-0

CMF C23 H30 N2 O4



L4 ANSWER 377 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:5664 HCAPLUS

DOCUMENT NUMBER: 84:5664

ORIGINAL REFERENCE NO.: 84:963a,966a

TITLE: Polymers containing divalent hydantoin rings in their main chains

INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi

Updated Search

10501317

PATENT ASSIGNEE(S): Teijin, Ltd., Japan  
 SOURCE: U.S., 57 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3903053	A	19750902	US 1973-417552	19731120
PRIORITY APPLN. INFO.:			US 1973-417552	A 19731120

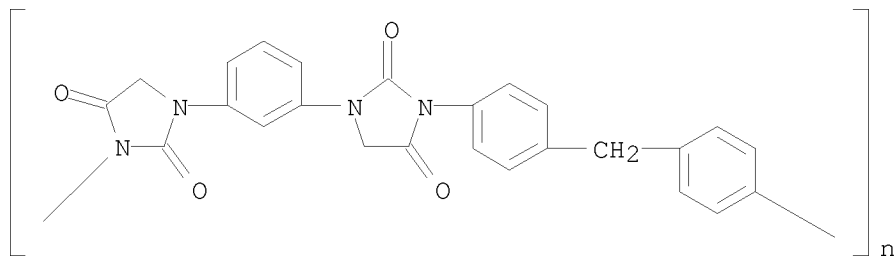
AB Divalent hydantoin ring-containing heat-resistant polymers were obtained without using a polyisocyanate starting material by combining an aminoglycine derivative (H<sub>2</sub>NRNHCH<sub>2</sub>CO<sub>2</sub>H, R = divalent organic residue) with a diaryl carbonate, or by combining a polyglycine derivative (R'O<sub>2</sub>CCH<sub>2</sub>NHRNHCH<sub>2</sub>CO<sub>2</sub>R', R' = H or hydrocarbon residue) and a primary diamine with a diaryl carbonate. Thus, N,N'-bis(ethoxycarbonylmethyl)-4,4'-diaminodiphenylmethane 7.40, 4,4'-diaminodiphenylmethane 3.96, and diphenyl carbonate 8.56 g were introduced into 30 ml of N-methylpyrrolidone and heated while the alc. and phenol were distilled off, heated 20 hr at 230°, removed from the solvent, and heated 9 hr at 240° under reduced pressure to give an amber-colored solid which was dissolved in m-cresol and poured into ethanol to give light yellowish brown flaky polymer [56597-78-5] with intrinsic viscosity in cresol at 30° 0.24 and ir absorption spectra having the absorption characteristics of hydantoin.

IT 31671-96-2P

RL: PREP (Preparation)  
 (preparation of)

RN 31671-96-2 HCAPLUS

CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,3-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 378 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:606160 HCAPLUS

DOCUMENT NUMBER: 83:206160

ORIGINAL REFERENCE NO.: 83:32447a,32450a

TITLE: Synthesis of 1-substituted and 1,3-disubstituted 5-hydantoincarboxylates

AUTHOR(S): Li, J. P.

CORPORATE SOURCE: Res. Lab., Aldrich Chem. Co., Inc., Milwaukee, WI, USA

Updated Search

10501317

SOURCE: Journal of Organic Chemistry (1975), 40(23), 3414-17  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 83:206160

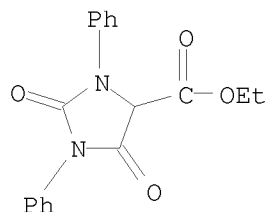
GI For diagram(s), see printed CA Issue.

AB N-substituted aminomalonates react with KCNO or isocyanates to give directly 1-substituted (I, R = Me, PhCH<sub>2</sub>, R<sub>1</sub> = H) or 1,3-disubstituted 5-hydantoincarboxylates (II, Me PhCH<sub>2</sub>, Ph; R<sub>1</sub> = Me, PhCH<sub>2</sub>, Ph). The initial products, i.e., the hitherto unknown N-substituted or N,N'-disubstituted ureidomalonates R<sub>1</sub>NHCONRCH(CO<sub>2</sub>Et)<sub>2</sub>, cyclize spontaneously on heating under the exptl. conditions. This behavior is in contrast to that of ureidomalonate and N'-substituted ureidomalonates, which require base catalysis for cyclization. The benzylic protons of 1-benzyl-5-hydantoincarboxylates display chemical shift nonequivalence.

IT 56598-97-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 56598-97-1 HCAPLUS

CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA INDEX NAME)



L4 ANSWER 379 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:595035 HCAPLUS

DOCUMENT NUMBER: 83:195035

ORIGINAL REFERENCE NO.: 83:30693a,30696a

TITLE: Colored and aromatic polyamides

INVENTOR(S): Wolf, Gerhard Dieter; Miessen, Ralf; Nischk, Guenther

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 22 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2404461	A1	19750814	DE 1974-2404461	19740131

PRIORITY APPLN. INFO.: DE 1974-2404461 A 19740131

AB Colored polyamide fibers with good lightfastness were prepared from spinning solns. obtained by mixing a solution of aromatic or aromatic-heterocyclic polyamide based on isophthaloyl chloride (I) with a solution of colored polyamide

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prepared by polycondensing a colored diamine, an aromatic or aromatic-heterocyclic

diamine, and I. The fibers contained 2-20 weight% of the colored polyamide component. Thus, a solution of polyamide [57014-48-9] prepared by adding 10.2 parts I to 3-(p-aminophenyl)-7-amino-2,4(1H,3H)-quinazolinedione (II) 6.7, 1,4-diaminoanthraquinone 6, and N-methylpyrrolidinone (III) 100 parts at 5-10° was blended with a solution of polyamide [25736-76-9] similarly prepared from II 268, I 203, and III 1900 parts. After neutralization of HCl by propylene oxide the solution was spun to give heat-stable, bordeaux red fibers with tenacity 4.5-5.3 g/dtex (5% elongation) and lightfastness 6. Three other colored polyamide fibers were prepared by using II, 1,3-bis(p-aminophenyl)-5,5-dimethylhydantoin, m-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub>, 2,6-diamino-1,3,5,7-tetrachlooroanthraquinone, Cellitazol STN, and 1,5-diaminoanthraquinone.

IT 25736-72-5

RL: USES (Uses)

(fiber, containing diamino dye-based polyamide, colored)

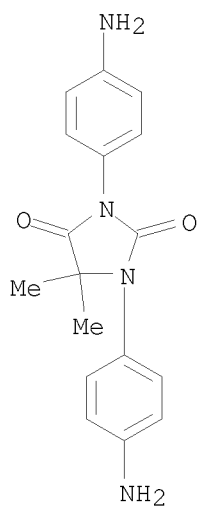
RN 25736-72-5 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

CM 1

CRN 24689-97-2

CMF C17 H18 N4 O2



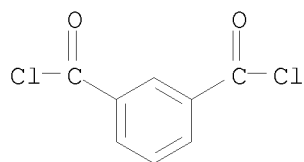
CM 2

CRN 99-63-8

CMF C8 H4 Cl2 O2



10501317



L4 ANSWER 380 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:595034 HCAPLUS  
DOCUMENT NUMBER: 83:195034  
ORIGINAL REFERENCE NO.: 83:30693a,30696a  
TITLE: Colored and aromatic copolyamides  
INVENTOR(S): Wolf, Gerhard Dieter; Miessen, Ralf; Nischk, Guenther  
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.  
SOURCE: Ger. Offen., 22 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2404460	A1	19750814	DE 1974-2404460	19740131
PRIORITY APPLN. INFO.:			DE 1974-2404460	A 19740131

AB Colored polyamide fibers with good lightfastness were prepared by polycondensing aromatic or aromatic-heterocyclic diamines and colored diamines (1-8 mole%) with isophthaloyl chloride (I) in a polar organic solvent and spinning the resulting solution. Thus, a solution of 3-(p-aminophenyl)-7-amino-2,4(1H,3H)-quinazolinedione 128.7, 1,5-diaminoanthraquinone 4.8, and N-methylpyrrolidinone 800 parts was treated portionwise at 0-20° with 101.5 parts I. After dilution with N-methylpyrrolidinone to viscosity .apprx.2000 P and neutralization of HCl by propylene oxide, the solution of polymer [57014-45-6] was spun to give deep red fibers with tenacity 4.2-4.7 g/dtex at 6-10% elongation, good thermal stability, and lightfastness 6-7. Eight other copolyamides were similarly prepared by using m-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub>, 1,3-bis(p-aminophenyl)-5,5-dimethylhydantoin, and m-C<sub>6</sub>H<sub>4</sub>(CONHC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-3)<sub>2</sub> as colorless diamines and various diaminoanthrquinones, diamino azo compds., and 3,8-diaminobenzo[c]cinnoline as colored diamines.

IT 57014-47-8

RL: USES (Uses)  
(fiber, colored)

RN 57014-47-8 HCAPLUS

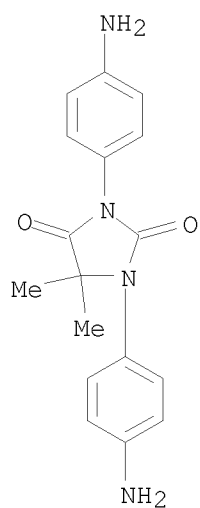
CN 1,3-Benzenedicarbonyl dichloride, polymer with 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione and 1,4-diamino-9,10-anthracenedione (9CI)  
(CA INDEX NAME)

CM 1

CRN 24689-97-2

CMF C17 H18 N4 O2

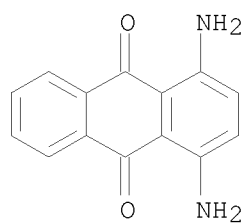
10501317



CM 2

CRN 128-95-0

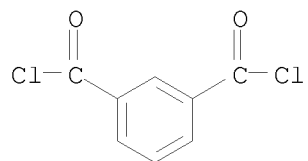
CMF C14 H10 N2 O2



CM 3

CRN 99-63-8

CMF C8 H4 Cl2 O2



L4 ANSWER 381 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:594561 HCAPLUS  
DOCUMENT NUMBER: 83:194561

Updated Search

10501317

ORIGINAL REFERENCE NO.: 83:30625a,30628a  
TITLE: Flame-retardant polymer composition  
INVENTOR(S): Johnson, Burnett H.; Johnson, Edward F.  
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3901847	A	19750826	US 1974-439179	19740204

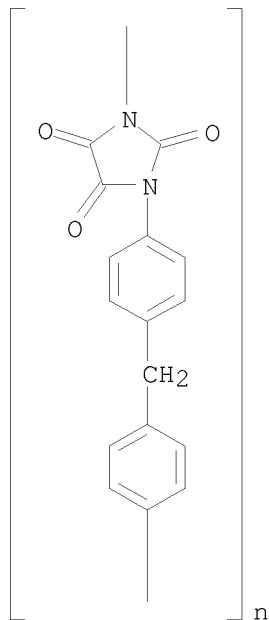
PRIORITY APPLN. INFO.: US 1972-284321 A1 19720828

AB Brominated aryl phosphates and phosphates were fire retardants for 1,3-imidazolidinetriene polymers. Thus, 2,4,6-tribromophenol [118-79-6] 70.0, MgCl<sub>2</sub> 1.0, and dichlorophenyl phosphine oxide [824-72-6] 19.5 g were heated 16 hr at 160° in 40 ml Ph<sub>2</sub>O to give 62.1 g (79.2%) bis(2,4,6-tribromophenyl) phenylphosphonate (I) [55204-94-9]. Poly(4,4'-methylenediphenyl-1,3-imidazolidine-2,4,5-trione (II) [37725-18-1] containing 2.5, 5.0, and 10.0% I gave test specimens with O index 26.7, 36.0, and 47.5%, resp., compared with 20.7 for II containing no fire retardant.

IT 37725-18-1  
RL: USES (Uses)  
(fire retardant for, bromophenylphosphonates and phosphates as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



10501317

L4 ANSWER 382 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:564831 HCAPLUS  
DOCUMENT NUMBER: 83:164831  
ORIGINAL REFERENCE NO.: 83:25877a,25880a  
TITLE: Hydantoin ring-containing hydroxycarboxylic acids  
INVENTOR(S): Hara, Shigeyoshi; Iwata, Kaoru  
PATENT ASSIGNEE(S): Teijin, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50077369	A	19750624	JP 1973-126809	19731113
JP 57053345	B	19821112		

PRIORITY APPLN. INFO.: JP 1973-126809 A 19731113

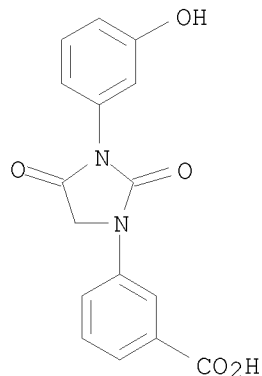
AB Hydantoin ring-containing hydroxycarboxylic acids, useful as starting materials for heat-resistant polymers, were prepared by heating glycine derivs., primary amines, and diaryl carbonates. Thus, a mixture of m-(ethoxycarbonylmethylamino)benzoic acid [23218-94-2] 9.0, m-NH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>OH [591-27-5] 4.36, and (PhO)<sub>2</sub>CO [102-09-0] 8.56 g in cresol was stirred 4 hr at 200° under N to give 7.8 g of product [56768-00-4].  
P-(Ethoxycarbonylmethylaminobenzoic acid [23284-85-7], N-(5-hydroxypentyl)glycine Et ester [40694-05-1], m-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>C(NHMe)MeCO<sub>2</sub>Et [56768-01-5], N-(3,5-dicarboxyphenyl)glycine Et ester [55065-44-6], m-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>COSPh [56768-02-6], p-NH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>OH [123-30-8], and diglycolamine [929-06-6] were also used.

IT 56768-00-4P

RL: PREP (Preparation)  
(preparation of)

RN 56768-00-4 HCAPLUS

CN Benzoic acid, 3-[3-(3-hydroxyphenyl)-2,4-dioxo-1-imidazolidinyl]- (CA INDEX NAME)



L4 ANSWER 383 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

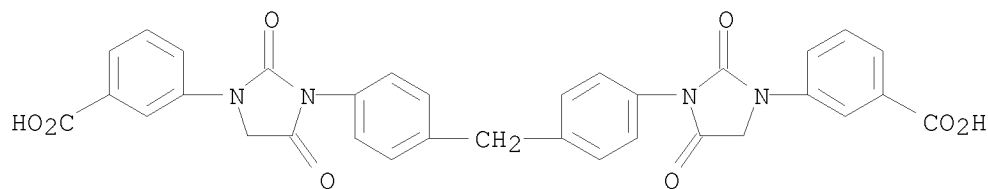
Updated Search

10501317

ACCESSION NUMBER: 1975:564173 HCAPLUS  
 DOCUMENT NUMBER: 83:164173  
 ORIGINAL REFERENCE NO.: 83:25767a,25770a  
 TITLE: Hydantoin ring-containing polycarboxylic acids or their aryl esters  
 INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi  
 PATENT ASSIGNEE(S): Teijin Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49075578	A	19740720	JP 1972-117096	19721124
GB 1456857	A	19761201	GB 1973-53454	19731116
US 3946033	A	19760323	US 1973-417566	19731120
NL 7316060	A	19740528	NL 1973-16060	19731123
FR 2207916	A1	19740621	FR 1973-41757	19731123
DE 2358437	A1	19750327	DE 1973-2358437	19731123
PRIORITY APPLN. INFO.:			JP 1972-117096	A 19721124
			JP 1972-126191	A 19721218

GI For diagram(s), see printed CA Issue.  
 AB Title acids or esters are prepared by heating (A) iminoacetic acids (HO<sub>2</sub>C)pZ<sub>1</sub>(NHCR<sub>2</sub>R<sub>3</sub>CO<sub>2</sub>R<sub>4</sub>)q (I; Z<sub>1</sub> = C-terminal organic group; p = 0-4; q = ]-4; R<sub>2</sub> and R<sub>3</sub> = H, C-terminal monovalent organic group; R<sub>4</sub> = lower alkyl, aryl, H), (B) amines (HO<sub>2</sub>C)rZ(NH<sub>2</sub>)s (II; Z = organic group; r = 0-4; s = 1-4), and (C) carbonates (RO)<sub>2</sub>CO (R = aryl). Typical products III are obtained when p = q = 1, r = 0, s = 1. Thus, a mixture of 2 moles m-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CO<sub>2</sub>Et, 1 mole (p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CH<sub>2</sub>, and 2 moles (PhO)<sub>2</sub>CO (IV) in N-methylpyrrolidinone was heated to 200° over 2 hr and kept there for 5 hr to give 93% III (R<sub>2</sub> = R<sub>3</sub> = H, Z<sub>1</sub> = m-C<sub>6</sub>H<sub>4</sub>, Z = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p). Among 5 more acid products prepared were (reactants and molar ratio given): Et diphenylmethane-p,p'-diiminoacetate (V), m-aminobenzoic acid (VI), IV, 1:2:2 (product VII); Et m-phenylenebisiminoacetate, VI, IV 1:2:2; Et 3,5-dicarboxyphenyliminoacetate, 3,9-bis(3-aminopropyl)-2,4,8,10-tetraoxaspiro[5.5]undecane, IV, 2:1:2.  
 IT 52025-91-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 52025-91-9 HCAPLUS  
 CN Benzoic acid, 3,3'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis- (9CI) (CA INDEX NAME)



10501317

L4 ANSWER 384 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:532553 HCAPLUS  
DOCUMENT NUMBER: 83:132553  
ORIGINAL REFERENCE NO.: 83:20867a,20870a  
TITLE: Heat-resistant polymers with hydantoin groups  
INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49035500	A	19740402	JP 1972-78734	19720808
JP 54030437	B	19791001		

PRIORITY APPLN. INFO.: JP 1972-78734 A 19720808

GI For diagram(s), see printed CA Issue.

AB Polycarboxylic acids m-EtO<sub>2</sub>CCH<sub>2</sub>NHC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H and 0.02 mole 4,4'-diphenylmethane diisocyanate (II) aromatic residue, R<sub>1</sub>, R<sub>2</sub> = H or a group not reactive with NCO, p = 1-4, n = 2-4, R = n-valent organic radical) are treated with polyisocyanate to give polymers. The products are heat resistant. Thus, 0.04 mole m-EtO<sub>2</sub>CCH<sub>2</sub>NHC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H and 0.02 mole 4,4'-diphenylmethane diisocyanate (II) in 20 ml m-cresol were heated to 200° in 3 hr and kept at 200° for 3 hr to give 4,4'-bis[1-(3-carboxyphenyl)hydantoin-3-yl]diphenylmethane (III). The III (0.005 mole) and 0.005 mole II in 7 ml N-methylpyrrolidone(IV) were heated slowly to 170° and kept at 170° for 10 hr to give a polymer with intrinsic viscosity 0.43 (30°, IV). The solution was cast on a glass plate, dried 1 hr at 130°, and heated 5 min at 300° to give a strong film.

IT 52733-50-3

RL: PEP (Physical, engineering or chemical process); PROC (Process) (heat-resistant)

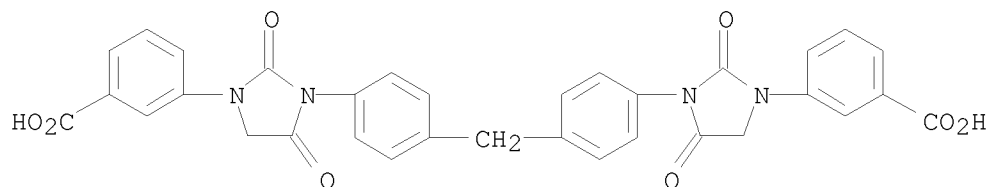
RN 52733-50-3 HCAPLUS

CN Benzoic acid, 3,3'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 52025-91-9

CMF C33 H24 N4 O8



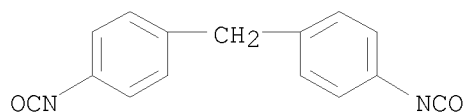
Updated Search

10501317

CM 2

CRN 101-68-8

CMF C15 H10 N2 O2



L4 ANSWER 385 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:532285 HCAPLUS

DOCUMENT NUMBER: 83:132285

ORIGINAL REFERENCE NO.: 83:20831a,20834a

TITLE: Polymers containing divalent hydantoin rings in the main chain

INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi

PATENT ASSIGNEE(S): Teijin, Ltd., Japan

SOURCE: Ger. Offen., 142 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2358504	A1	19750528	DE 1973-2358504	19731123
DE 2358504	B2	19790301		
DE 2358504	C3	19820429		

PRIORITY APPLN. INFO.: DE 1973-2358504 A 19731123

GI For diagram(s), see printed CA Issue.

AB Heat-resistant hydantoin derivative polymers are prepared without the use of isocyanates by polymerizing polyfunctional amino acid derivs., polyfunctional primary amines, and diaryl carbonates. Thus, stirring m-C<sub>6</sub>H<sub>4</sub>(NHCH<sub>2</sub>CO<sub>2</sub>Et)<sub>2</sub> 2.80, CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-p)<sub>2</sub> 1.98, and (PhO)<sub>2</sub>CO 4.28 g in 10 ml N-methylpyrrolidone (I) to 220° with alc. distillation and 6 hr at 220° gives polymer [31671-96-2], intrinsic viscosity (I, 30°) 0.33 dl/g, temperature of initial and maximum weight loss 320 and 380°, resp., in air; and 380 and 400°, resp., in N.

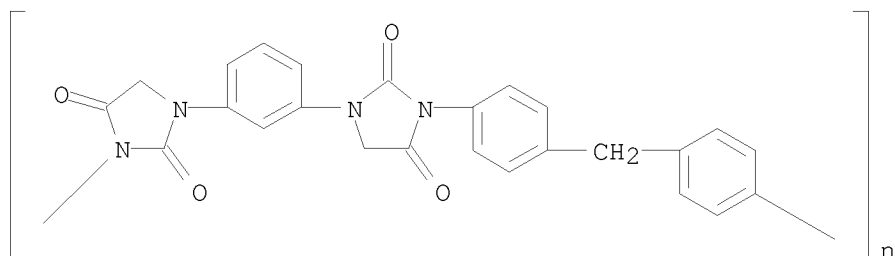
IT 31671-96-2P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manufacture of heat-resistant)

RN 31671-96-2 HCAPLUS

CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,3-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L4 ANSWER 386 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:499413 HCAPLUS  
DOCUMENT NUMBER: 83:99413  
ORIGINAL REFERENCE NO.: 83:15631a,15634a  
TITLE: Insulated electrical conductor  
INVENTOR(S): Schmidt, Karl; Wille, Dietrich  
PATENT ASSIGNEE(S): Beck, Dr., und Co. A.-G., Fed. Rep. Ger.  
SOURCE: Ger., 4 pp.  
CODEN: GWXXAW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1615830	B2	19750306	DE 1967-B95945	19671221
AT 281155	B	19700525	AT 1967-640	19670123
PRIORITY APPLN. INFO.:			AT 1967-640	A 19670123

GI For diagram(s), see printed CA Issue.

AB Wire enamels with improved resistance to thermal shock and hydrolysis consist of a base coat of crosslinked terephthalate polyester and a topcoat of hydantoin derivative polymer. Thus, 1 mm Cu wires are coated to 55  $\mu$  with a 35% solution of ethylene glycol-glycerol-terephthalic acid polymer (I) [25703-18-8] [DIN viscosity (4 mm outlet) of 40% cresol solution 20 min at 20°] and then to 16  $\mu$  with a 12% solution of polyhydantoin (II) [31780-80-0] and baked at 480° to give a wire with pencil hardness 3H, abrasion resistance 110 cycles, thermal shock resistance (1 hr, 200°) 2 diameter, and softening temperature 340°; compared with 2-3 H, 68, 7, and 310°, resp., for a 70  $\mu$  coating of I only.

IT 31780-80-0

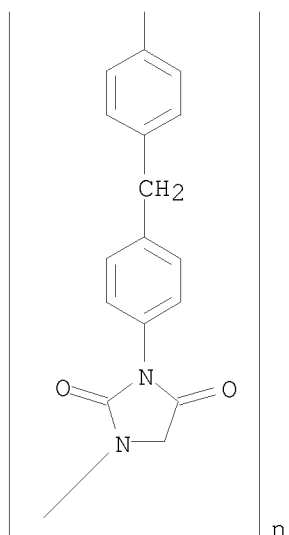
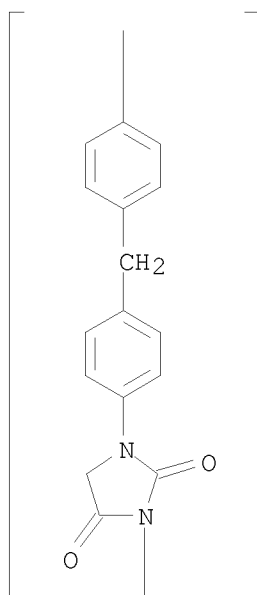
RL: USES (Uses)

(wire enamels, containing polyesters, heat-resistant)

RN 31780-80-0 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)





L4 ANSWER 387 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:479960 HCAPLUS  
DOCUMENT NUMBER: 83:79960  
ORIGINAL REFERENCE NO.: 83:12565a,12568a

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TITLE: Polymers containing hydantoin rings  
INVENTOR(S): Hara, Shigeyoshi; Iwata, Kaoru  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49094792	A	19740909	JP 1972-116544	19721122
JP 55041244	B	19801023		

PRIORITY APPLN. INFO.: JP 1972-116544 A 19721122

GI For diagram(s), see printed CA Issue.

AB Dicarboxylic acids containing hydantoin rings (I, Ar and x given resp.: m-C<sub>6</sub>H<sub>4</sub>, m; p-C<sub>6</sub>H<sub>4</sub>, p; p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p, m) were treated with polyisocyanates or masked polyisocyanates to give polymers containing hydantoin rings. Equimolar amts. of I (Ar = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p, x = m) and 4,4'-diphenylmethane diisocyanate were heated 5 hr at 18° in N-methylpyrrolidone to give a film-forming flaky polymer [54446-05-8].

IT 54446-05-8P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manufacture of)

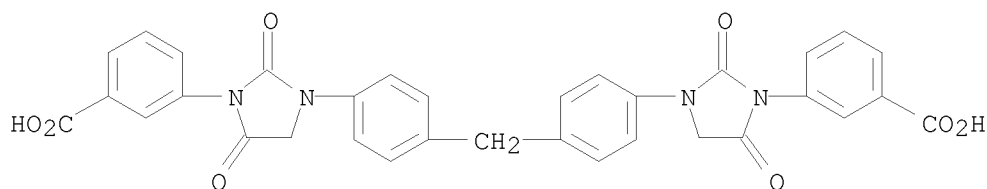
RN 54446-05-8 HCAPLUS

CN Benzoic acid, 3,3'-[methylenebis[4,1-phenylene(2,5-dioxo-3,1-imidazolidinediyl)]]bis-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 54446-04-7

CMF C33 H24 N4 O8

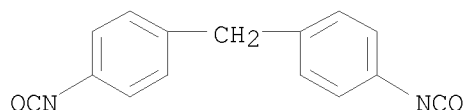


CM 2

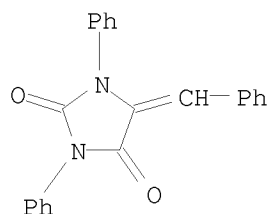
CRN 101-68-8

CMF C15 H10 N2 O2

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L4 ANSWER 388 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:479208 HCAPLUS  
DOCUMENT NUMBER: 83:79208  
ORIGINAL REFERENCE NO.: 83:12438h,12439a  
TITLE: Reactions of phenylbromoacetylene with heterocumulenes  
in the presence of iron pentacarbonyl  
AUTHOR(S): Baba, Akio; Ohshiro, Yoshiki; Agawa, Toshio  
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, Japan  
SOURCE: Journal of Organometallic Chemistry (1975), 87(2),  
247-56  
CODEN: JORCAI; ISSN: 0022-328X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 83:79208  
GI For diagram(s), see printed CA Issue.  
AB Reactions of PhC.tplbond.CB7 with RN:C:NR1 in the presence of iron  
pentacarbonyl gave diazepinone derivs. I (R = Ph, R1 = H; R = p-MeC6H4, R1  
= 4-Me; R = o-MeC6H4, R1 = 2-Me) in 41-17% yields. The reaction with  
PhNCO gave two hydantoin derivs. II (R = H, PhC.tplbond.C) (8 and 18%  
resp.). The reaction with PhC:C:O was not catalyzed by iron pentacarbonyl  
and gave 2-bromo-3,4-diphenyl-1-diphenylacetoxynaphthalene. In all cases  
coupling of PhC.tplbond.CBr7 gave diphenylbutadiyne.  
IT 4514-33-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 4514-33-4 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)- (CA INDEX NAME)



L4 ANSWER 389 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:462006 HCAPLUS  
DOCUMENT NUMBER: 83:62006  
ORIGINAL REFERENCE NO.: 83:9800h,9801a  
TITLE: Polyimide polymer  
INVENTOR(S): Nishizaki, Shunichiro; Fukami, Akira; Hirota, Kiyoshi  
PATENT ASSIGNEE(S): Mitsubishi Electric Corp.  
SOURCE: Jpn. Tokkyo Koho, 4 pp.  
CODEN: JAXXAD

Updated Search

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DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49012592	B	19740326	JP 1970-54558	19700623
PRIORITY APPLN. INFO.:			JP 1970-54558	19700623

GI For diagram(s), see printed CA Issue.

AB Organic solvent-soluble polyimides are prepared by reaction of an aromatic diamine

containing a hydantoin ring with an aromatic tetracarboxylic anhydride or ester in an organic solvent. Thus, a mixture of diamine I 49.4, pyromellitic dianhydride 21.8, and cresol 170 parts was heated 4 hr at 100°, 2 hr at 150°, and poured into MeOH to give a heat-resistant polyimide. The polymer dissolved in cresol was coated on a glass plate to give a 30-μ-thick coating film with good mech. strength.

IT 52664-76-3

RL: USES (Uses)  
(solvent-soluble, heat-resistant)

RN 52664-76-3 HCAPLUS

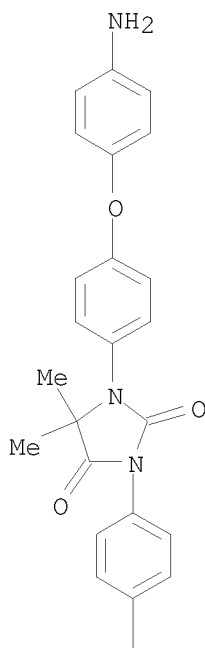
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with  
1,3-bis[4-(4-aminophenoxy)phenyl]-5,5-dimethyl-2,4-imidazolidinedione  
(9CI) (CA INDEX NAME)

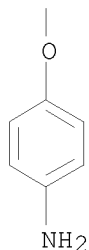
CM 1

CRN 24802-17-3

CMF C29 H26 N4 O4

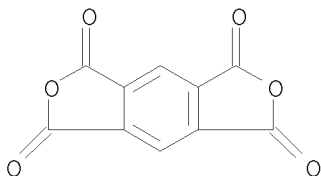
PAGE 1-A





CM 2

CRN 89-32-7  
CMF C10 H2 O6



L4 ANSWER 390 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1975:444028 HCAPLUS  
 DOCUMENT NUMBER: 83:44028  
 ORIGINAL REFERENCE NO.: 83:6987a,6990a  
 TITLE: Polyhydantoin and production process thereof  
 INVENTOR(S): Okada, Shinichi; Suzuki, Masahiro; Omi, Akio  
 PATENT ASSIGNEE(S): Hitachi Cable, Ltd., Japan  
 SOURCE: U.S., 6 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3876584	A	19750408	US 1973-382189	19730724
PRIORITY APPLN. INFO.:			US 1973-382189	A 19730724

GI For diagram(s), see printed CA Issue.

AB Heating RO<sub>2</sub>CNHXNHCH<sub>2</sub>CO<sub>2</sub>R<sub>1</sub> (II, R = Me, Et; R<sub>1</sub> = H, Me, Et, Ph; X = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p, p-C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>-p, m-C<sub>6</sub>H<sub>4</sub>, p-C<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>-p, p-C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>,-p, 1,5-naphthalenediyl, (CH<sub>2</sub>)<sub>6</sub>, p-C<sub>6</sub>H<sub>4</sub>COC<sub>6</sub>H<sub>4</sub>-p) at 100-350° gave polyhydantoins (I) with improved resistance to heat and chems. and improved elec. and mech. strength. Thus, 374 g II (R = R<sub>1</sub> = Et; X = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>), 280.0 g com. m-cresol, and 0.4 g lead oxide were heated to

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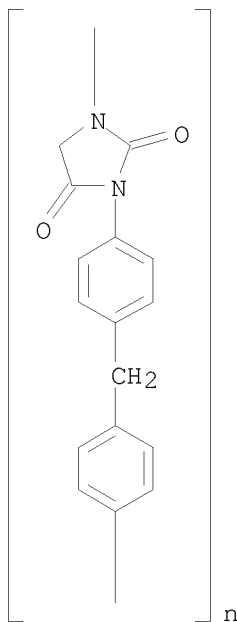
190° in 2 hr. Heating was continued at 190° for 6 hr until 80% of the theoretical EtOH was removed. M-cresol (140 g) was added and the mixture heated 4 hr at 195°. The precipitated polymer was dissolved in cresol, mixed with (BuO)4Ti, and formed into a film by heating 20 min at 220°. The 0.05 mm thick film had tensile strength 9.40 kg/15 mm, elongation 48.7%, and tear strength 20.8 g compared with 3.90, 11.2, and 5.2 resp. for a comparison film prepared from diphenylmethane-4,4'-diisocyanate-N,N'-bis(carboethoxymethyl)-4,4'-diaminodiphenylmethane polymer.

IT 53540-63-9P

RL: PREP (Preparation)  
(preparation of)

RN 53540-63-9 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 391 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:171879 HCAPLUS

DOCUMENT NUMBER: 82:171879

ORIGINAL REFERENCE NO.: 82:27491a,27494a

TITLE: Heat-hardenable polyester hydanthione resins

INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi

PATENT ASSIGNEE(S): Teijin Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

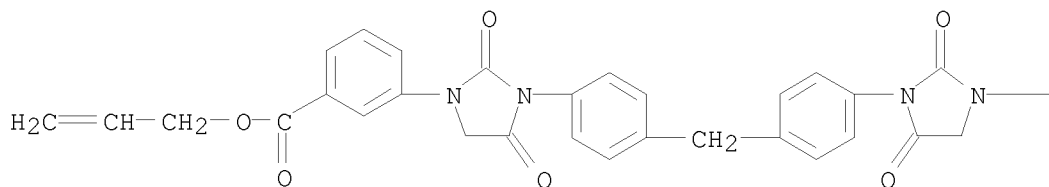
PATENT INFORMATION:

Updated Search

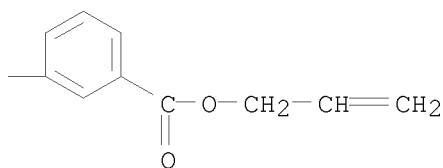
10501317

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 49132177	A	19741218	JP 1973-40353	19730411
PRIORITY APPLN. INFO.:				JP 1973-40353	A 19730411
GI	For diagram(s), see printed CA Issue.				
AB	(Methyl)allyl esters of polyhydantoin polycarboxylates, with or without other unsatd. compds. were polymerized to give the title resins. Thus, 10 parts I was mixed with dicumyl peroxide and heated for 2 hr at 180° to give a polymer [54956-66-0] with heat resistance better than that of poly(diallyl isophthalate).				
IT	54956-66-0 RL: PEP (Physical, engineering or chemical process); PROC (Process) (heat-resistant)				
RN	54956-66-0 HCAPLUS				
CN	Benzoic acid, 3,3'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis-, di-2-propenyl ester, homopolymer (9CI) (CA INDEX NAME)				
CM	1				
CRN	54729-68-9				
CMF	C39 H32 N4 O8				

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PAGE 1-B



L4 ANSWER 392 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:156003 HCAPLUS  
DOCUMENT NUMBER: 82:156003  
ORIGINAL REFERENCE NO.: 82:24888h,24889a  
TITLE: Reactive intermediates. XXVI. Flash vacuum pyrolysis of phenyl-substituted 1,2,4-triazoles. New synthesis of isoindoles  
AUTHOR(S): Gilchrist, Thomas L.; Rees, Charles W.; Thomas, Colin  
CORPORATE SOURCE: Robert Robinson Lab., Univ. Liverpool, Liverpool, UK  
SOURCE: Journal of the Chemical Society, Perkin Transactions

Updated Search

10501317

1: Organic and Bio-Organic Chemistry (1972-1999)  
(1975), (1), 12-18  
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 82:156003

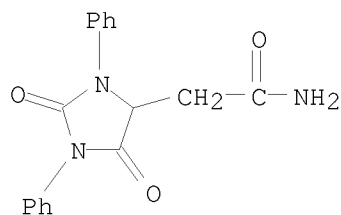
GI For diagram(s), see printed CA Issue.

AB The triphenyltriazoles I and II on vacuum pyrolysis gave 1,3-diphenylisoindole by 1,5-Ph shift and via a 3H-1,2,4-triazole intermediate. The diphenyltriazoles III-VI similarly gave 1-phenylisoindole and 1-phenyl-1,2,4-triazole gave isoindole. 3-Phenyl-1,2,4-triazole on pyrolysis gave PhCN and NH<sub>2</sub>CN. 4-Phenyl-1,2,4-triazole gave NCNPhCH:NH which with N-phenylmaleimide gave VII via PhN:C:NH. 4-(2,4,6-Trimethylphenyl)-1,2,4-triazole on pyrolysis gave 2,4,6-(H<sub>2</sub>N)Me<sub>2</sub>C<sub>6</sub>H<sub>2</sub>CH<sub>2</sub>CN via indole VIII.

IT 54893-34-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 54893-34-4 HCAPLUS

CN 4-Imidazolidineacetamide, 2,5-dioxo-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 393 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:125981 HCAPLUS  
DOCUMENT NUMBER: 82:125981  
ORIGINAL REFERENCE NO.: 82:20137a,20140a  
TITLE: Heterocyclic diisocyanates  
INVENTOR(S): Findeisen, Kurt; Wagner, Kuno; Klauke, Erich  
PATENT ASSIGNEE(S): Bayer A.-G.  
SOURCE: Ger. Offen., 18 pp.  
CODEN: GWXXBX

DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2318170	A1	19741031	DE 1973-2318170	19730411
FR 2225426	A1	19741108	FR 1974-11157	19740329
US 4146723	A	19790327	US 1974-457290	19740402
BE 813419	A1	19741008	BE 1974-142943	19740408
NL 7404774	A	19741015	NL 1974-4774	19740408
IT 1015914	B	19770520	IT 1974-50252	19740409
JP 49135972	A	19741227	JP 1974-40132	19740410

Updated Search

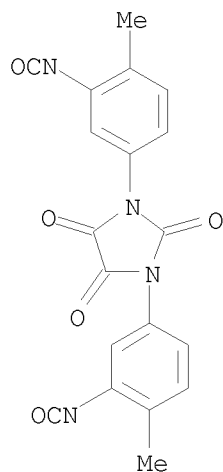


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	GB 1437846	A	19760603	GB 1974-15911	19740410
PRIORITY APPLN. INFO.:				DE 1973-2318170	A 19730411
GI	For diagram(s), see printed CA Issue.				
AB	Six heterocyclic diisocyanates, e.g. an imidazolidinone diisocyanate derivative (I) [54518-23-9], and N,N'-bis(3-isocyanato-4-methylphenyl)parabanic acid [54518-24-0] were prepared by heating [4,3-Me(OCN)C6H3NH]2CO with organic halides, e.g. (CF3N:CF)2, and oxalyl chloride, resp., in inert solvents and used in the manufacture of acid- and heat-resistant polymers, e.g. N,N'-bis(3-isocyanato-4-methylphenyl)parabanic acid-phthalic anhydride-trimethylolpropane polymer [54518-73-9].				
IT	54518-73-9 RL: USES (Uses) (heat- and solvent-resistant)				
RN	54518-73-9 HCAPLUS				
CN	Imidazolidinetrione, bis(3-isocyanato-4-methylphenyl)-, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)				

CM 1

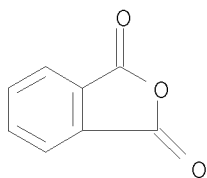
CRN 54518-24-0  
CMF C19 H12 N4 O5



CM 2

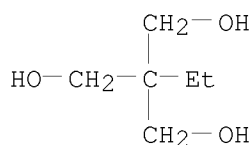
CRN 85-44-9  
CMF C8 H4 O3

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CM 3

CRN 77-99-6  
CMF C6 H14 O3



L4 ANSWER 394 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:112076 HCAPLUS  
DOCUMENT NUMBER: 82:112076  
ORIGINAL REFERENCE NO.: 82:17911a,17914a  
TITLE: Allyl polycarboxylates having hydantoin rings  
INVENTOR(S): Hara, Shigeyoshi; Iwata, Kaoru  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49087668	A	19740822	JP 1973-1331	19721228
JP 57053343	B	19821112		

PRIORITY APPLN. INFO.: JP 1973-1331 A 19721228

GI For diagram(s), see printed CA Issue.

AB The allyl polycarboxylates were prepared by treating (RO<sub>2</sub>C)pZ<sub>5</sub>Z<sub>1</sub>(Z<sub>2</sub>Z<sub>3</sub>)mZ<sub>4</sub>(CO<sub>2</sub>R)q (I) with CH<sub>2</sub>:CR:CH<sub>2</sub>R<sub>1</sub>(p, q = 1-4; Z<sub>5</sub> = organic group of (p + 1) valence; Z<sub>4</sub> = organic group of (q + 1) valence; Z<sub>2</sub> = divalent organic group; m = 0 or 1; Z<sub>1</sub> and Z<sub>3</sub> = II or III [R<sub>4</sub> and R<sub>5</sub> = H or monovalent organic group]; R = H, monovalent organic group, metal cation of 1-3 valence, or NH<sub>4</sub>; R<sub>6</sub> = H or lower alkyl; R<sub>1</sub> = halogen, OH, or their ester). Thus, 11.1 g 4,4'-diaminodiphenylmethane, 8.22 g m-aminobenzoic acid, and 12.9 g diphenyl carbonate in N-methylpyrrolidinone were heated in an N stream to give 78% I (R = H, p = q = m = x 1, Z<sub>5</sub> = Z<sub>4</sub> = m-C<sub>6</sub>H<sub>4</sub>, Z<sub>1</sub> = III (R<sub>4</sub> = R<sub>5</sub> = H), Z<sub>2</sub> = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p, Z<sub>3</sub> = II (R<sub>4</sub> = R<sub>5</sub> = H), which (12.1 g) was refluxed 5 hr with allyl chloride in N-methylpyrrolidinone in the presence of K<sub>2</sub>CO<sub>3</sub> to give 82% diallyl ester. Similarly prepared were the diallyl esters of the following I (R = R<sub>4</sub> = R<sub>5</sub> = H, p = q = 1, Z<sub>5</sub> = Z<sub>4</sub>)

Updated Search

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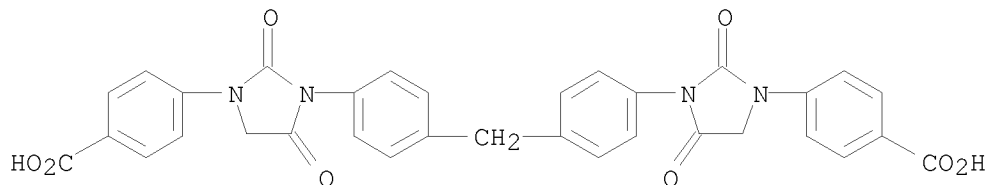
(Z5, Z1, Z2, Z3, and m given): m-C6H4, II, p-C6H4CH2C6H4-p, III, 1;  
p-C6H4, II, p-C6H4CH2C6H4-p, III, 1; m-C6H4, III, -, -, 0; m-C6H4, III,  
m-C6H4, II, 1.

IT 51960-19-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
(esterification of)

RN 51960-19-1 HCAPLUS

CN Benzoic acid, 4,4'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-  
imidazolidinediyl)]]bis- (9CI) (CA INDEX NAME)



L4 ANSWER 395 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:100210 HCAPLUS

DOCUMENT NUMBER: 82:100210

ORIGINAL REFERENCE NO.: 82:16003a,16006a

TITLE: (Poly)hydantoins

INVENTOR(S): Merten, Rudolf; Lewalter, Juergen; Zecher, Wilfried

PATENT ASSIGNEE(S): Bayer A.-G.

SOURCE: Ger. Offen., 15 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 2318154	A1	19741031	DE 1973-2318154	19730411
DE 2318154	C2	19820121		
NL 7404777	A	19741015	NL 1974-4777	19740408
JP 50012085	A	19750207	JP 1974-39538	19740409
IT 1004463	B	19760710	IT 1974-50250	19740409
GB 1420904	A	19760114	GB 1974-16005	19740410
ES 425191	A1	19760616	ES 1974-425191	19740410
FR 2225472	A1	19741108	FR 1974-12849	19740411

PRIORITY APPLN. INFO.: DE 1973-2318154 A 19730411

GI For diagram(s), see printed CA Issue.

AB Monomeric or polymeric hydantoin derivs., useful as lacquers, were prepared by 2-step reaction of chloroacetates with amines and isocyanates. Thus, reaction of ClCH2CO2Ph with PhNH2 in cresol at 61-100° and reaction of the product with PhNCO at 100-200° gave 1,3-diphenylhydantoin (I) [3157-03-7].

IT 31780-80-0

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings)

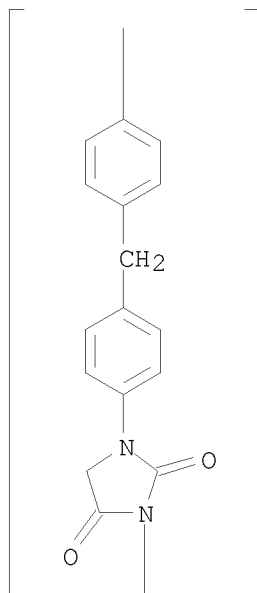
RN 31780-80-0 HCAPLUS

Updated Search

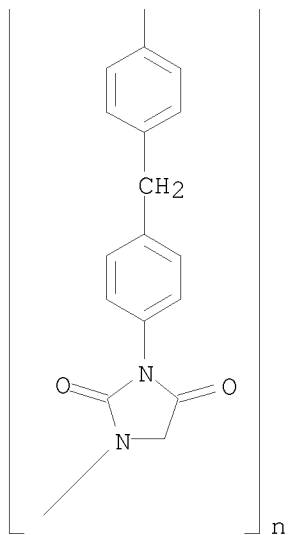
10501317

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

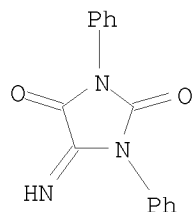


PAGE 2-A



10501317

L4 ANSWER 396 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:97975 HCAPLUS  
DOCUMENT NUMBER: 82:97975  
ORIGINAL REFERENCE NO.: 82:15645a,15648a  
TITLE: Reaction of trimethylsilyl cyanide with isocyanates  
AUTHOR(S): Ojima, Iwao; Inaba, Shinichi; Nagai, Yoichiro  
CORPORATE SOURCE: Sagami Chem. Res. Cent., Kanagawa, Japan  
SOURCE: Journal of the Chemical Society, Chemical  
Communications (1974), (20), 826-7  
CODEN: JCCCAT; ISSN: 0022-4936  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI For diagram(s), see printed CA Issue.  
AB Me<sub>3</sub>SiCN reacted (50°, 6 hr) with 2 mole equiv p-RC<sub>6</sub>H<sub>4</sub>NCO (I, R = H,  
Cl) and α-naphthyl isocyanate to give 82-91% of the  
iminodiazolidinediones II-IV. treatment of I (R = Me) with Me<sub>3</sub>SiCN gave  
95% p-MeC<sub>6</sub>H<sub>4</sub>-SO<sub>2</sub>N(SiMe<sub>3</sub>)COCN.  
IT 10319-52-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 10319-52-5 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-imino-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 397 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:87133 HCAPLUS  
DOCUMENT NUMBER: 82:87133  
ORIGINAL REFERENCE NO.: 82:13933a,13936a  
TITLE: Parabanic acid copolymer resin solutions with  
stabilized viscosity  
INVENTOR(S): Wada, Shozo; Nishioka, Hajimu; Ikeda, Tadao  
PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49087748	A	19740822	JP 1972-129597	19721226
JP 54043547	B	19791220		
PRIORITY APPLN. INFO.:			JP 1972-129597	A 19721226

Updated Search

10501317

GI For diagram(s), see printed CA Issue.

AB Viscosity of parabanic acid copolymers (I, R,R' = arylene), dissolved in a solvent, is stabilized by adding an acidic organic compound to the solution

Thus,

22.5 g of a copolymer (I, R,R' = p-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-p)(II) [37725-18-1] with mol. weight 63,300 was dissolved in a mixture of 76.5 g DMF and 51.0 g m-cresol [108-39-4] to give a solution, in which the mol. weight of II

decreased

to 52,000 in 1 month, compared with 20,000 for a control solution containing no m-cresol.

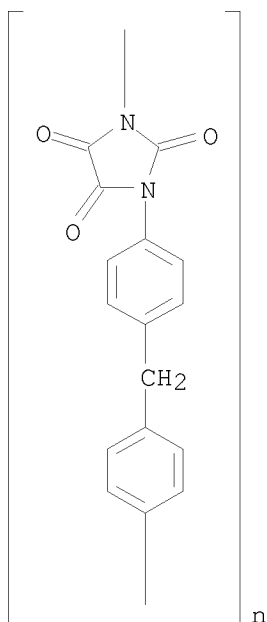
IT 37725-18-1

RL: USES (Uses)

(stabilizers for, cresol as)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 398 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:73929 HCAPLUS

DOCUMENT NUMBER: 82:73929

ORIGINAL REFERENCE NO.: 82:11831a,11834a

TITLE: Parbanic acid copolymer resin compositions

INVENTOR(S): Wada, Shozo; Nishioka, Hajimu; Ikeda, Tadao; Isono, Masaaki

PATENT ASSIGNEE(S): Toa Nenryo Kogyo K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

Updated Search

10501317

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49087747	A	19740822	JP 1972-129596	19721226
JP 54038627	B	19791122		

PRIORITY APPLN. INFO.: JP 1972-129596 A 19721226

GI For diagram(s), see printed CA Issue.

AB Parabanic acid copolymer resin compns. with low glass transition temperature, thus good molding workability, are prepared by mixing the copolymers with polyamide resins and inorg. fillers (optional). Thus, 30 parts of a solution of 50 g of copolymer (I) [37725-18-1] (prepared by the method described in US Patent 3,591,562) dissolved in 500 g DMF was mixed with 70 parts of a solution of 50 g nylon 6 [25038-54-4] dissolved in m-cresol, and the mixture was poured in MeOH to give a precipitate, which was vacuum dried

and

molded at 260° and 200 kg/cm<sup>3</sup> to give a 2-mm-thick sheet with tensile strength 780 kg/cm<sup>2</sup> at 25°, elongation 265% at 25° (ASTM D-648), and glass transition temperature 63°.

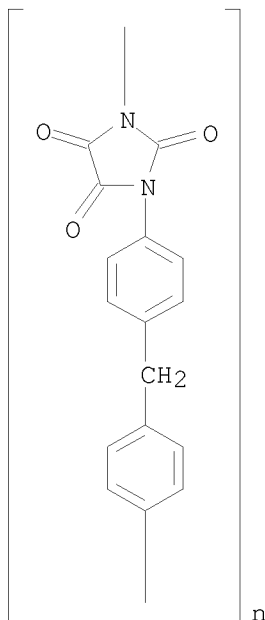
IT 37725-18-1

RL: USES (Uses)

(molding compns., containing nylon)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 399 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:58539 HCAPLUS  
DOCUMENT NUMBER: 82:58539  
ORIGINAL REFERENCE NO.: 82:9375a,9378a

Updated Search

10501317

TITLE: Compounds containing hydantoin rings  
INVENTOR(S): Merten, Rudolf; Lewalter, Juergen; Zecher, Wilfried  
PATENT ASSIGNEE(S): Bayer A.-G.  
SOURCE: Ger. Offen., 36 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 2318205	A1	19741024	DE 1973-2318205	19730411
DE 2318205	C2	19820422		
JP 50012086	A	19750207	JP 1974-39539	19740409
JP 57053347	B	19821112		
IT 1004177	B	19760710	IT 1974-50257	19740409
NL 7404917	A	19741015	NL 1974-4917	19740410
GB 1420903	A	19760114	GB 1974-15873	19740410
FR 2225474	A1	19741108	FR 1974-12851	19740411
US 3939122	A	19760217	US 1974-493521	19740801
PRIORITY APPLN. INFO.:			DE 1973-2318205	A 19730411
			US 1974-457853	A2 19740404

GI For diagram(s), see printed CA Issue.

AB Hydantoin is prepared by reaction of iso(thio)cyanates with  $\alpha$ -haloamides. Similarly, polymers are obtained from diiso(thio)cyanates and bis( $\alpha$ -haloamides). Thus, mixing 32.6 g m-phenylene isocyanate with N,N'-m-phenylenebis(2-chloroacetamide) in 160 g m-cresol at 80° and heating 12 hr at 185° gives a .apprx.30% solution of polyhydantoin (I) [54061-58-4], viscosity 7680 cP at 20°, Cl content <0.3%.

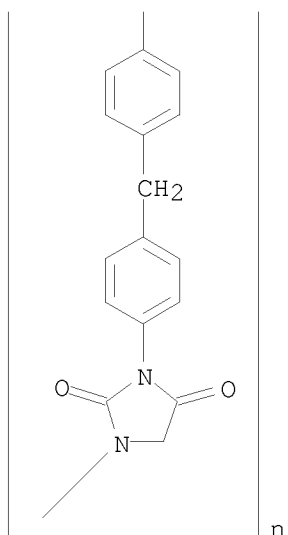
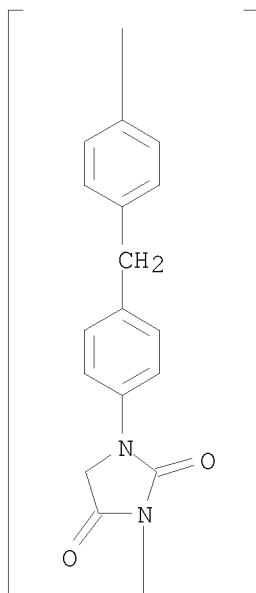
IT 31780-80-0P

RL: PREP (Preparation)  
(preparation of)

RN 31780-80-0 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene(2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)





L4 ANSWER 400 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:58535 HCAPLUS  
DOCUMENT NUMBER: 82:58535  
ORIGINAL REFERENCE NO.: 82:9375a,9378a

10501317

TITLE: Hydrolyzed heterocyclic polymers  
 INVENTOR(S): Patton, Tad L.  
 PATENT ASSIGNEE(S): Esso Research and Engineering Co.  
 SOURCE: Can., 31 pp.  
 CODEN: CAXXA4  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 946538	A1	19740430	CA 1970-79464	19700407
PRIORITY APPLN. INFO.:			CA 1970-79464	A 19700407

GI For diagram(s), see printed CA Issue.

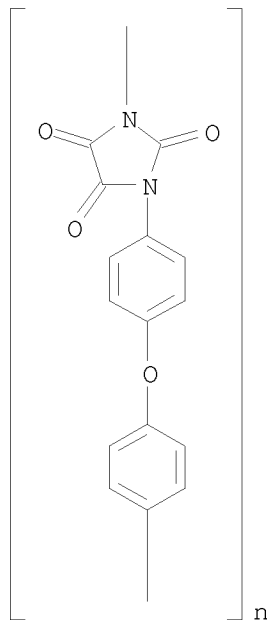
AB Polymers containing structures I were prepared by hydrolysis of precursor polymers containing 4(5)-imino-2,5(4)-dioxo-1,3-imidazolin-1,3-diyl groups, obtained from HCN or dicyanoformamide and diisocyanates or from cyanoformamidylisocyanates. Thus, 51 g HCN and 470 g 4,4'-diphenylmethane diisocyanate were polymd.in N-methylpyrrolidone in the presence of NaCN for 30 min, mixed with 20 g Et3N, stirred 30 min, and hydrolyzed with 200 ml 37% aqueous HCl at <35°, giving 500 g polymer [28550-63-2] which had intrinsic viscosity 1.46 and m.p. 293°, and could be cast into clear, tough films.

IT 31626-60-5P

RL: PREP (Preparation)  
 (manufacture of film-forming)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
 (9CI) (CA INDEX NAME)



10501317

L4 ANSWER 401 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1975:45253 HCAPLUS  
DOCUMENT NUMBER: 82:45253  
ORIGINAL REFERENCE NO.: 82:7217a,7220a  
TITLE: Heat-resistant polymers  
INVENTOR(S): Okada, Shinichi; Suzuki, Masahiro; Oomi, Akio  
PATENT ASSIGNEE(S): Hitachi Electric Wire Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 49041499	A	19740418	JP 1972-73887	19720725
JP 54014637	B	19790608		

PRIORITY APPLN. INFO.: JP 1972-73887 A 19720725

GI For diagram(s), see printed CA Issue.

AB A heat-resistant polyhydantoin is prepared by polycondensation of R1O2CNHZNHCH2CO2R2, where Z is a divalent aliphatic, alicyclic, or arom radical; R1 and R2 are H or monovalent aliphatic, alicyclic, or aromatic radicals. P-EtO2CNHC6H4CH2C6H4NHCH2CO2Et-p (I) (374.4 g) was heated with 280 g m-cresol and 0.4 g CuO over 2 hr to 190° under N, stirred 6 hr at 190°, diluted with 140 g m-cresol, heated 4 hr at 195°, further diluted with 330 g m-cresol, and mixed with 2.8 g (BuO)4Ti to give a I homopolymer [53620-10-3] solution which was coated on copper wire and baked at 400°. The heat-resistant polymer had structure II.

IT 53540-63-9

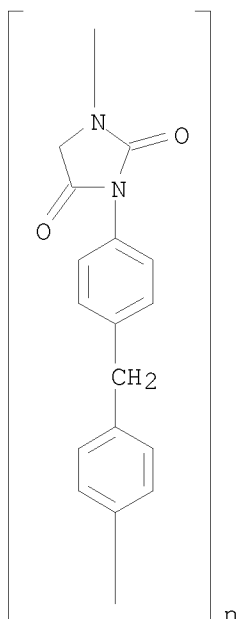
RL: USES (Uses)

(heat-resistant, elec. insulating coatings, on copper wire)

RN 53540-63-9 HCAPLUS

CN Poly[(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

10501317



L4 ANSWER 402 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:31839 HCAPLUS

DOCUMENT NUMBER: 82:31839

ORIGINAL REFERENCE NO.: 82:5069a,5072a

TITLE: Effects of thermal treatment on the structure and properties of soluble heat-resisting polymers

AUTHOR(S): Tanaka, Takao; Fujimoto, Takamitsu; Shibayama, Kyoichi

CORPORATE SOURCE: Cent. Res. Lab., Mitsubishi Electr. Corp., Amagasaki, Japan

SOURCE: Kobunshi Ronbunshu (1974), 31(7), 450-5

CODEN: KBRBA3; ISSN: 0386-2186

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI For diagram(s), see printed CA Issue.

AB Heating films prepared from hydantoin polymer (I) [53161-11-8] or parabanic acid polymers II [37725-18-1] or III [31626-60-5] at 300° under N gave polymers with increased glass transition temperature, and the ratio of penetration length to the thickness of the films decreased rapidly near the glass transition temperature of the polymers. On heating at 200-600° the weight loss of I was less than that of II or III.

IT 31626-60-5

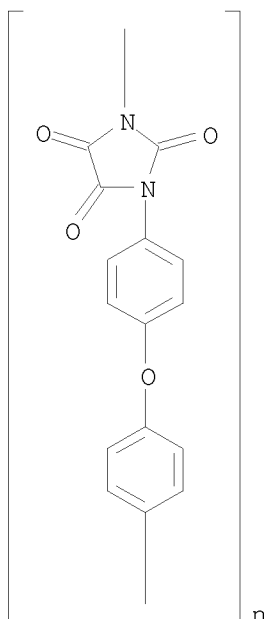
RL: PRP (Properties)  
(heat-resistance of)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 403 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:20857 HCAPLUS

DOCUMENT NUMBER: 82:20857

ORIGINAL REFERENCE NO.: 82:3309a,3312a

TITLE: Water washable penetrant

INVENTOR(S): Molina, Orlando G.

PATENT ASSIGNEE(S): Air Products and Chemicals, Inc.

SOURCE: U.S., 5 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3814695	A	19740604	US 1971-211631	19711223

PRIORITY APPLN. INFO.: US 1969-833208 A2 19690116

AB A dye penetrant composition is disclosed for a rapid and highly effective 2-step defect inspection process. It comprises a fluorescing agent (Fluorol 7G-A, Calcofluor White RW), an activator for such agent where required, a plastic medium which dries substantially after application to form a semisolid film, and a surfactant (Tergitol Nonionic NPX and Tergitol Nonionic TMN) which causes structural fragmentation and separation of excess dye penetrant.

IT 37725-18-1

RL: USES (Uses)

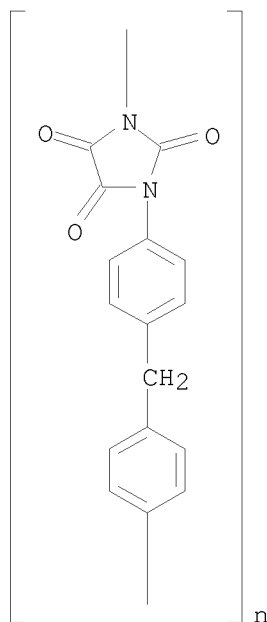
(dipenetrant containing, for defect detection, on alloy and metal surfaces)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 404 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:16743 HCAPLUS

DOCUMENT NUMBER: 82:16743

ORIGINAL REFERENCE NO.: 82:2681a,2684a

TITLE: Synthesis of a mesoionic imidazole system and studies of its participation in 1:3 dipolar cycloaddition reactions

AUTHOR(S): Singh, Gurbakhsh; Pande, P. S.

CORPORATE SOURCE: Dep. Chem., Banaras Hindu Univ., Varanasi, India

SOURCE: Tetrahedron Letters (1974), (25), 2169-70

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Treatment of PhN:CPhCO<sub>2</sub>H with (CF<sub>3</sub>CO)<sub>2</sub>O gave the mesoionic imidazole I. I reacted with alkenes and alkynes to give 1,3 dipolar cycloadducts. Thus, I with CH<sub>2</sub>:CHCN gave II.

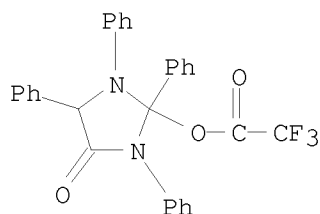
IT 54563-04-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 54563-04-1 HCAPLUS

CN Acetic acid, trifluoro-, 4-oxo-1,2,3,5-tetraphenyl-2-imidazolidinyl ester  
(9CI) (CA INDEX NAME)

10501317



L4 ANSWER 405 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:579882 HCAPLUS  
DOCUMENT NUMBER: 81:179882  
ORIGINAL REFERENCE NO.: 81:27733a,27736a  
TITLE: Inhibitors for photographic color development  
INVENTOR(S): Fujiwara, Mitsuto; Kasai, Keiji; Nakagawa, Yoshinobu;  
Tokura, Hiroshi; Itoh, Kenji; Muramoto, Seiji  
PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd.  
SOURCE: Ger. Offen., 36 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 2405442	A1	19740905	DE 1974-2405442	19740205
DE 2405442	C2	19840719		
JP 49104630	A	19741003	JP 1973-13811	19730205
JP 51019987	B	19760622		
US 3961959	A	19760608	US 1974-436868	19740128
GB 1443661	A	19760721	GB 1974-4434	19740131
PRIORITY APPLN. INFO.:			JP 1973-13811	A 19730205

GI For diagram(s), see printed CA Issue.

AB Thio ethers, e.g. I (R = alkyl, R1 = H or 1-phenyl-5-tetrazolythio, R2 = 1-phenyl-5-tetrazolyl or 2-carboxyphenyl) were used as inhibitors in photog. color development leading to images of improved gradation, graininess, sharpness (internal effect), and color reproduction (external effect) without impairing the sensitivity, whereby only one inhibitor was satisfactory for different kinds of layers. Thus, a green-sensitive Ag(Br,I) emulsion contg. I (R = n-C12H25, R1 = 1-phenyl-5-tetrazolythio, R2 = 1-phenyl-5-tetrazolyl) and 15 g magenta coupler/kg had sensitivity 97 and  $\gamma$  0.5 vs. 98 and 0.70, resp., for an emulsion containing twice the molar amount (4.94 g) of p-(lauroylamino)- $\omega$ -(1-phenyl-5-tetrazolythio)acetophenone instead of I.

IT 3157-03-7

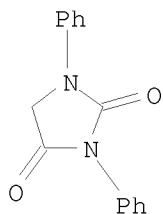
RL: RCT (Reactant); RACT (Reactant or reagent)  
(chlorination of)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 406 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:570239 HCAPLUS  
DOCUMENT NUMBER: 81:170239  
ORIGINAL REFERENCE NO.: 81:26351a,26354a  
TITLE: Polyimide  
INVENTOR(S): Nishizaki, Shunichiro; Fukami, Akira; Hirata, Kiyashi  
PATENT ASSIGNEE(S): Mitsubishi Electric Corp.  
SOURCE: Jpn. Tokkyo Koho, 7 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
JP 49012593	B	19740326	JP 1970-54559	19700623

PRIORITY APPLN. INFO.: JP 1970-54559 19700623

AB A polyimide soluble in organic solvents is prepared by treating an aromatic tetracarboxylic acid dianhydride or its diester with a hydantoin derivative diamine. Thus, a mixture of aromatic diamine I 54.6, pyromellitic dianhydride 21.8, and cresol 300 parts was heated under N 4 hr at 80.deg. and for 4 hr at 150.deg. to give a viscous solution of polymer [52859-13-9], intrinsic viscosity 1.45 (m-cresol, 30.deg.).

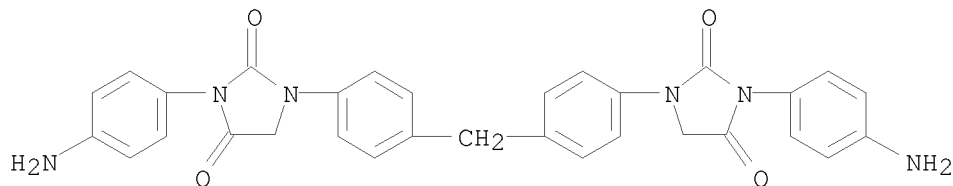
IT 52859-12-8P  
RL: PREP (Preparation)  
(preparation of)

RN 52859-12-8 HCAPLUS

CN 2,4-Imidazolidinedione, 1,1'-(methylenedi-4,1-phenylene)bis[3-(4-aminophenyl)-, polymer with 5,5'-carbonylbis[1,3-isobenzofurandione] (9CI)  
(CA INDEX NAME)

CM 1

CRN 52859-11-7  
CMF C31 H26 N6 O4



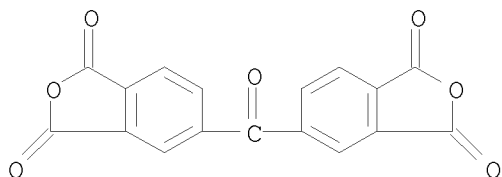
Updated Search



10501317

CM 2

CRN 2421-28-5  
CMF C17 H6 O7



L4 ANSWER 407 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:522538 HCAPLUS  
DOCUMENT NUMBER: 81:122538  
ORIGINAL REFERENCE NO.: 81:19379a,19382a  
TITLE: Aromatic polyamide fibers  
INVENTOR(S): Wolf, Gerhard Dieter; Kuenzel, Hans E.; Blankenstein, Guenter; Bentz, Francis  
PATENT ASSIGNEE(S): Bayer A.-G.  
SOURCE: Ger. Offen., 28 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 2248662	A1	19740418	DE 1972-2248662	19721004
DD 109229	A5	19741020	DD 1973-173831	19731002
DD 112293	A5	19750405	DD 1973-179566	19731002
IT 998689	B	19760220	IT 1973-29649	19731002
CA 1019889	A1	19771025	CA 1973-182407	19731002
BE 805620	A1	19740403	BE 1973-136304	19731003
NL 7313605	A	19740408	NL 1973-13605	19731003
JP 49073492	A	19740716	JP 1973-110618	19731003
ES 419294	A1	19760401	ES 1973-419294	19731003
FR 2202117	A1	19740503	FR 1973-35580	19731004
US 3862088	A	19750121	US 1973-403389	19731004
GB 1435118	A	19760512	GB 1973-46412	19731004
PRIORITY APPLN. INFO.:			DE 1972-2248662	A 19721004

AB Aromatic polyamide fibers of high modulus of elasticity and tenacity were prepared by polycondensation of p-(ClCO)2C6H4 with 1,3-bis(4-aminophenyl)-5,5-dimethylhydantoin (I) and the benzanilides II (R = H or Cl, R1 = H or Me). Thus, 101.5 parts p-(ClCO)2C6H4 was added to 143.5 parts II (R = R1 = H) and 15.5 parts I in AcNMe2 and the mixture stirred 6 hr to give 4-amino-3'-(4-aminophenoxy)benzanilide-1,3-bis(4-aminophenyl)-5,5-dimethylhydantoin-terephthaloyl dichloride copolymer (III) [52609-33-3] of relative viscosity 2.54 (0.5%, concentrated H2SO4). Fibers from III stretched by 700% had tenacity 13-16 g/dtex, elongation at break 2%, and modulus of elasticity 8630 +- 730 kg/mm2.

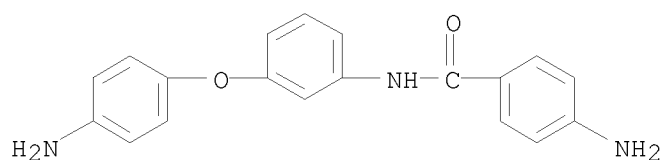
Updated Search

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IT 52609-33-3  
RL: USES (Uses)  
(fiber, elastic high-modulus)  
RN 52609-33-3 HCAPLUS  
CN 1,4-Benzenedicarbonyl dichloride, polymer with 4-amino-N-[3-(4-aminophenoxy)phenyl]benzamide and 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

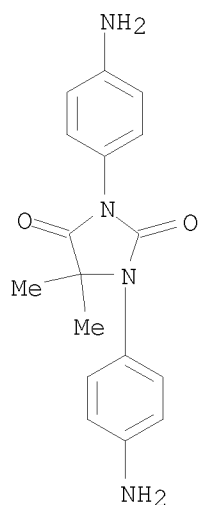
CM 1

CRN 41370-79-0  
CMF C19 H17 N3 O2



CM 2

CRN 24689-97-2  
CMF C17 H18 N4 O2

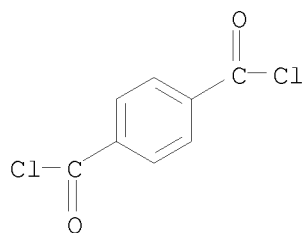


CM 3

CRN 100-20-9  
CMF C8 H4 Cl2 O2

Updated Search

10501317



L4 ANSWER 408 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:463631 HCAPLUS  
DOCUMENT NUMBER: 81:63631  
ORIGINAL REFERENCE NO.: 81:10141a,10144a  
TITLE: Antiepileptic (4-sulfamoylphenyl)imidazolidinones  
PATENT ASSIGNEE(S): Geistlich, Ed., Soehne A.-G. fuer Chemische Industrie  
SOURCE: Ger. Offen., 38 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2357591	A1	19740522	DE 1973-2357591	19731119
DE 2357591	B2	19790705		
DE 2357591	C3	19800228		
GB 1408010	A	19751001	GB 1972-53437	19721120
BE 807490	A1	19740520	BE 1973-137896	19731119
NL 7315807	A	19740522	NL 1973-15807	19731119
FR 2206947	A1	19740614	FR 1973-41140	19731119
JP 49093362	A	19740905	JP 1973-129279	19731119
JP 54001312	B	19790123		
ZA 7308824	A	19740925	ZA 1973-8824	19731119
AU 7362660	A	19750522	AU 1973-62660	19731119
AT 7309687	A	19751015	AT 1973-9687	19731119
AT 330766	B	19760726		
ES 420661	A1	19760401	ES 1973-420661	19731119
US 3963706	A	19760615	US 1973-416854	19731119
HU 170143	B	19770428	HU 1973-GE946	19731119
CA 1021783	A1	19771129	CA 1973-186100	19731119
CH 603594	A5	19780831	CH 1977-13931	19731119
CH 605808	A5	19781013	CH 1973-16211	19731119
CH 605802	A5	19781013	CH 1976-16014	19731119
DK 138645	C	19790319	DK 1973-6226	19731119
DK 138645	B	19781009		
FI 57934	B	19800731	FI 1973-3561	19731119
FI 57934	C	19801110		
SE 417960	B	19810427	SE 1973-15644	19731119
SE 417960	C	19810806		
PRIORITY APPLN. INFO.:			GB 1972-53437	A 19721120
			CH 1973-16211	19731119

GI For diagram(s), see printed CA Issue.

AB Twenty sulfonamides I [R = e.g. Ph, C<sub>6</sub>H<sub>4</sub>Cl-3 or -4, or cyclohexyl; R<sub>1</sub> =

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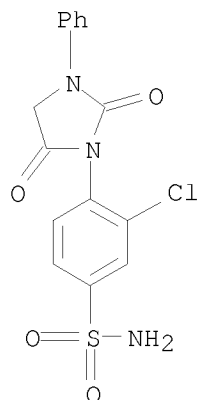
e.g. H, 2- or 3-Cl, 3-CF<sub>3</sub>, or 2-F; R<sub>2</sub> = H or Me] and II [R<sub>3</sub> = Ph, C<sub>6</sub>H<sub>3</sub>(SO<sub>2</sub>NH<sub>2</sub>) Cl-4,2, C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub>-4, or cyclohexyl; R<sub>4</sub> = H or SO<sub>2</sub>NH<sub>2</sub>] were prepared and used as antiepileptics. Thus, 4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> (III) and ClCH<sub>2</sub>COC<sub>1</sub> was refluxed to give 4-ClCH<sub>2</sub>CONHC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> (IV). IV reacted with PhNH<sub>2</sub> to give 4-PhNHCH<sub>2</sub>CONHC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub>, which was refluxed with paraformaldehyde in aq.EtOH to give I (R = Ph, R<sub>1</sub> = R<sub>2</sub> = H). III and ClCH<sub>2</sub>CONHPh was autoclaved at 120° to give 4-H<sub>2</sub>NSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>-CONHPh, which was autoclaved with ClCO<sub>2</sub>Me at 130° to give II (R<sub>3</sub> = 4-H<sub>2</sub>NSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, R<sub>4</sub> = H).

IT 53297-94-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 53297-94-2 HCAPLUS

CN Benzenesulfonamide, 3-chloro-4-(2,5-dioxo-3-phenyl-1-imidazolidinyl)- (CA INDEX NAME)



L4 ANSWER 409 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:463624 HCAPLUS

DOCUMENT NUMBER: 81:63624

ORIGINAL REFERENCE NO.: 81:10141a,10144a

TITLE: (1,3-Diphenyl-2-imidazolidinyl)phenols

INVENTOR(S): Hocker, Juergen; Merten, Rudolf

PATENT ASSIGNEE(S): Bayer A.-G.

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2255290	A1	19740522	DE 1972-2255290	19721111
NL 7315334	A	19740514	NL 1973-15334	19731108
BE 807140	A1	19740509	BE 1973-137595	19731109
FR 2206318	A1	19740607	FR 1973-39983	19731109
FR 2206318	B1	19780915		
JP 49133365	A	19741221	JP 1973-125546	19731109

Updated Search

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JP 57034263	B	19820722		
GB 1424923	A	19760211	GB 1973-52131	19731109
IT 1006114	B	19760930	IT 1973-31179	19731109
US 4020084	A	19770426	US 1973-414482	19731109
CH 605839	A5	19781013	CH 1973-15771	19731109

PRIORITY APPLN. INFO.: DE 1972-2255290 A 19721111

GI For diagram(s), see printed CA Issue.

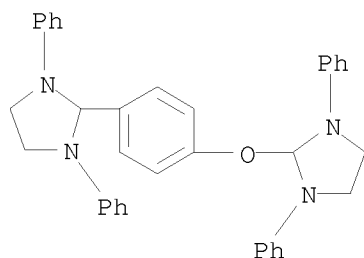
AB Nine imidazolidinylphenols I (R = H or Cl, OH in 2- or 4-position; R1 = e.g. Me, CMe3, NO2, or Cl; R2 = e.g. Me, CMe3, or H), useful as plant-protective agents, were prepared by refluxing the bisimidazolidinylidenes II with R1R2C6H3OH in DMF under N.

IT 53175-51-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 53175-51-2 HCAPLUS

CN Imidazolidine, 2-[4-[(1,3-diphenyl-2-imidazolidinyl)oxy]phenyl]-1,3-diphenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 410 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:120836 HCAPLUS

DOCUMENT NUMBER: 80:120836

ORIGINAL REFERENCE NO.: 80:19451a,19454a

TITLE: Pyrimidine derivatives and related compounds. LXXXIV. Synthesis of 4-aryliminoparabanic acids and 2-arylimino-2,3-dihydro-1,4-thiazine derivatives via 2-N,N'-diarylamidinothiazolium salts

AUTHOR(S): Takamizawa, Akira; Matsumoto, Saichi; Makino, Itsuo  
CORPORATE SOURCE: Shionogi Res. Lab., Shionogi and Co., Ltd., Osaka, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1974), 22(2), 311-15  
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB 1,3-Dipolar addition reaction of 2-(N,N'-diarylamidino)-thiazolium salts (I) with heterocumulenes such as isocyanate and isothiocyanate yielded 4-(arylimino)parabanic acid derivs. (II). Action of alkali on I afforded 2-(arylimino)-2,3-dihydro-1,4-thiazin-3-one derivs. (III).

IT 52625-19-1P

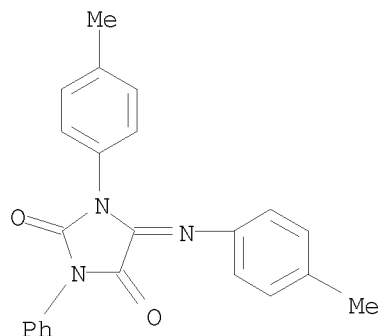
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 52625-19-1 HCAPLUS

Updated Search

10501317

CN 2,4-Imidazolidinedione, 1-(4-methylphenyl)-5-[(4-methylphenyl)imino]-3-phenyl- (CA INDEX NAME)



L4 ANSWER 411 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:108525 HCAPLUS  
DOCUMENT NUMBER: 80:108525  
ORIGINAL REFERENCE NO.: 80:17459a,17462a  
TITLE: Polycarboxylic acids having hydantoin ring  
INVENTOR(S): Iwata, Kaoru; Hara, Shigeyoshi  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49014468	A	19740207	JP 1972-56427	19720608
JP 56026662	B	19810619		

PRIORITY APPLN. INFO.: JP 1972-56427 A 19720608

GI For diagram(s), see printed CA Issue.

AB The title compds. were prepared by the reaction of n moles of (HO<sub>2</sub>C)pANHC(R<sub>1</sub>)(R<sub>2</sub>)COR<sub>3</sub> (I) [p = 1-4; A = aromatic group of (p + 1) valence; R<sub>1</sub>, R<sub>2</sub> = H or organic group having terminal C; R<sub>3</sub> = alkoxy, aryloxy, OH, NH<sub>2</sub>, or substituted amino] with 1 mole polyisocyanate and (or) masked polyisocyanate where n indicates the number of isocyanate groups in 1 mole polyisocyanate or masked polyisocyanate. E.g., 8.92 g I (p = 1, A = m-C<sub>6</sub>H<sub>4</sub>, R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = OEt) (II) and 5 g 4,4'-diphenylmethane diisocyanate in 20 ml m-cresol were heated to give 10.1 g III. The reaction of II with 4,4',4'''-triphenylmethane triisocyanate and that of I (p = 1, A = p-C<sub>6</sub>H<sub>4</sub>, R<sub>1</sub> = R<sub>2</sub> = H, R<sub>3</sub> = OEt) with bis(phenoxy carbamoyl)-4,4'-diphenylmethane was also described.

IT 51960-19-1P

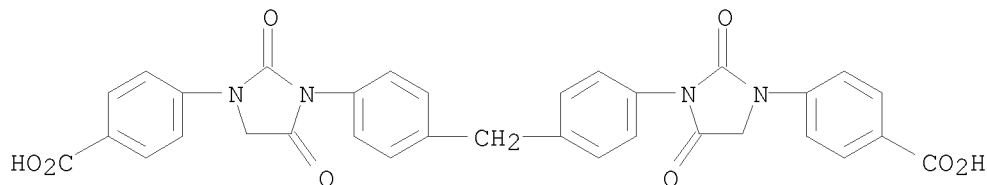
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 51960-19-1 HCAPLUS

CN Benzoic acid, 4,4'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis- (9CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 412 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:97167 HCAPLUS  
DOCUMENT NUMBER: 80:97167  
ORIGINAL REFERENCE NO.: 80:15633a,15636a  
TITLE: Polyamide fibers with improved water absorption  
INVENTOR(S): Wolf, Gerhard Dieter; Kuenzel, Hans E.; Blankenstein, Guenter; Kleinschmidt, Peter; Bentz, Francis  
PATENT ASSIGNEE(S): Bayer A.-G.  
SOURCE: Ger. Offen., 21 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2224507	A1	19731206	DE 1972-2224507	19720519
NL 7306847	A	19731121	NL 1973-6847	19730516
GB 1384985	A	19750226	GB 1973-23414	19730516
BE 799661	A1	19731119	BE 1973-131213	19730517
IT 987698	B	19750320	IT 1973-24251	19730517
CA 1011031	A1	19770524	CA 1973-171716	19730517
FR 2185650	A1	19740104	FR 1973-18177	19730518
FR 2185650	B1	19790126		
JP 49041487	A	19740418	JP 1973-54823	19730518
DD 107710	A5	19740812	DD 1973-170934	19730518
DD 111940	A5	19750312	DD 1973-179521	19730518
ES 414910	A1	19760201	ES 1973-414910	19730518

PRIORITY APPLN. INFO.: DE 1972-2224507 A 19720519

AB Polyamide fibers of improved water absorption contained 5-9 mole% (aminophenyl)hydantoin units. Thus, 203 parts isophthaloyl chloride was added to m-(H<sub>2</sub>N)2C<sub>6</sub>H<sub>4</sub> 98.3, 1,3-bis(4-aminophenyl)-5,5-dimethylhydantoin 27.9, and N-methylpyrrolidinone 1000 parts at -30.deg., the solution spun through a nozzle (containing 10 holes of diameter 0.1 mm) into an aqueous bath of 30-40.deg., and the fibers were stretched by 150% in refluxing H<sub>2</sub>O and by 350% at 350.deg. to give 1,3-bis(4-aminophenyl)-5,5-dimethylhydantoin-isophthalylol chloride-m-phenylenediamine copolymer [35255-01-7] fibers of tenacity 2.7-3.0 g/dtex at 10% elongation and of H<sub>2</sub>O absorption 9.8% at 20.deg. and 40% relative humidity.

IT 34110-31-1  
RL: USES (Uses)  
(fibers, hydrophilic)

Updated Search

10501317

RN 34110-31-1 HCAPLUS

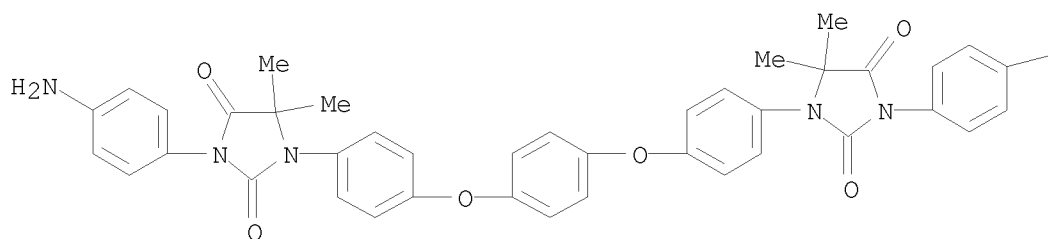
CN 1,3-Benzenedicarbonyl dichloride, polymer with 1,3-benzenediamine and  
1,1'-[1,4-phenylenebis(oxy-4,1-phenylene)]bis[3-(4-aminophenyl)-5,5-  
dimethyl-2,4-imidazolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 24802-16-2

CMF C40 H36 N6 O6

PAGE 1-A



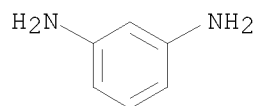
PAGE 1-B



CM 2

CRN 108-45-2

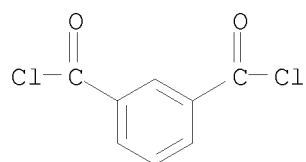
CMF C6 H8 N2



CM 3

CRN 99-63-8

CMF C8 H4 Cl2 O2

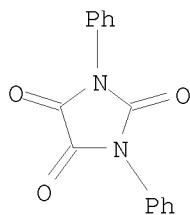


Updated Search



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L4 ANSWER 413 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:82808 HCAPLUS  
DOCUMENT NUMBER: 80:82808  
ORIGINAL REFERENCE NO.: 80:13325a,13328a  
TITLE: Reactions of isocyanates with N-aryloxamidates  
AUTHOR(S): Kraft, Kurt; Reese, Johannes  
CORPORATE SOURCE: Forschungsabt. Kunstharze, Reichhold-Albert-Chem.  
A.-G., Wiesbaden, Fed. Rep. Ger.  
SOURCE: Angewandte Chemie (1973), 85(22), 982-3  
CODEN: ANCEAD; ISSN: 0044-8249  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI For diagram(s), see printed CA Issue.  
AB Base-catalyzed reaction of RNCO (R = n-C<sub>8</sub>H<sub>17</sub>, cyclohexyl, Ph, or substituted phenyl) with R<sub>1</sub>NHCOCO<sub>2</sub>R<sub>2</sub> (R<sub>1</sub> = Ph, substituted phenyl, 1-C<sub>10</sub>H<sub>7</sub>, 2-pyridyl, or 9,10-dihydro-9,10-dioxo-2-anthryl; R<sub>2</sub> = Me, Et, or Bu) yielded 65-98% imidazolidines I. Similarly prepared were the arenes II (Q = m- or p-phenylene, p,p'-biphenylene, substituted p,p'-biphenylene, or Q<sub>1</sub> with R<sub>3</sub> = H, Me, OMe and X = CH<sub>2</sub>, SO<sub>2</sub>, O) in 65-95% yield.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 414 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1974:47423 HCAPLUS  
DOCUMENT NUMBER: 80:47423  
ORIGINAL REFERENCE NO.: 80:7729a,7732a  
TITLE: Orthoamides. XXIV. Synthesis and reactions of amide thioacetals and aminal thioesters  
AUTHOR(S): Brederick, Hellmut; Simchen, Gerhard; Hoffmann, Horst  
CORPORATE SOURCE: Inst. Org. Chem., Univ. Stuttgart, Stuttgart, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1973), 106(11), 3725-31  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 80:47423  
AB (RS)2CHNMe<sub>2</sub> (R = Et, CMe<sub>3</sub>) were prepared in 51-79% yield by reaction of [MeO ...\_CH ...\_NMe<sub>2</sub>]+ MeSO<sub>4</sub>- with NaSR or by treatment of (EtO)2CHNMe<sub>2</sub> with RSH. (Me<sub>2</sub>N)2CHSR (R = Et, CHMe<sub>2</sub>, CMe<sub>3</sub>) were prepared in 14.5-74% yield by

Updated Search

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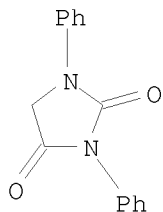
reaction of [Me<sub>2</sub>N ...CH ...NMe<sub>2</sub>]<sup>+</sup> MeSO<sub>4</sub><sup>-</sup> with NaSR or by treatment of (Me<sub>2</sub>N)2CHOCMe<sub>3</sub> with RSH. The chemical properties of the compds. obtained were similar to those of their oxygen analogs.

IT 3157-03-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 415 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:14874 HCAPLUS

DOCUMENT NUMBER: 80:14874

ORIGINAL REFERENCE NO.: 80:2497a,2500a

TITLE: Photo- and radiochemical studies. 24. Photostability of phenazone in aqueous solutions in the presence of sensitizers

AUTHOR(S): Reisch, J.; Ossenkop, W. F.

CORPORATE SOURCE: Inst. Pharm. Chem., Westfael. Wilhelms-Univ., Muenster, Fed. Rep. Ger.

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1973), 306(9), 679-84

CODEN: ARPMAS; ISSN: 0365-6233

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB In addition to previously described products of the photolysis of phenazone (I) (in basic aqueous medium containing sensitizers), the decomposition products

MeN:CMech(CONHPh)CH(COMe)NPhCONHPh, the imidazolone II, 1-phenyl-3,4-dimethyl-4-hydroxyhydantoin, and 1,3-diphenyl-4-methyl-4-hydroxyhydantoin were characterized.

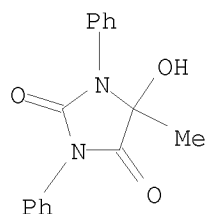
IT 50871-96-0P

RL: PREP (Preparation)  
(from photochem. decomposition of phenazone)

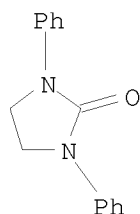
RN 50871-96-0 HCAPLUS

CN 2,4-Imidazolidinedione, 5-hydroxy-5-methyl-1,3-diphenyl- (CA INDEX NAME)

10501317



L4 ANSWER 416 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:526391 HCAPLUS  
DOCUMENT NUMBER: 79:126391  
ORIGINAL REFERENCE NO.: 79:20519a,20522a  
TITLE: Preparation of 1,3-diaryl-2-imidazolidinones  
AUTHOR(S): Settepani, Joseph A.; Brown, Richard T.; Borkovec, Alexej B.  
CORPORATE SOURCE: Agric. Environ. Qual. Inst., Agric. Res. Serv., Beltsville, MD, USA  
SOURCE: Journal of Heterocyclic Chemistry (1973), 10(4), 639-42  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI For diagram(s), see printed CA Issue.  
AB 2-Imidazolidinones I (R = H, Me, Cl, OMe; R1 = H, 2-OEt, 3-Me, 4-Cl, 3,4-Cl2, 3-, 4-NO2) were prepared by treating p-RC6H4NHCH2CH2Cl with R1C6H4NCO to give the ureas p-RC6H4N(CH2CH2Cl)CONHC6H4R1 followed by cyclization.  
IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)

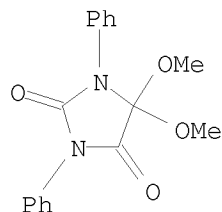


L4 ANSWER 417 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:525513 HCAPLUS  
DOCUMENT NUMBER: 79:125513  
ORIGINAL REFERENCE NO.: 79:20379a,20382a  
TITLE: Carbene reactions. III. Addition of dimethoxycarbene to isocyanates and isothiocyanates  
AUTHOR(S): Hoffmann, Reinhard W.; Steinbach, Klaus; Dittrich, Brigitte

Updated Search

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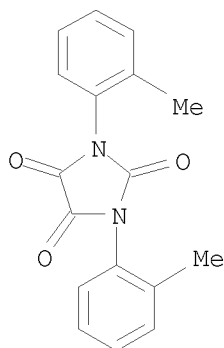
CORPORATE SOURCE: Inst. Org. Chem., Univ. Marburg, Marburg/L., Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1973), 106(7), 2174-84  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI For diagram(s), see printed CA Issue.  
AB Addition of dimethoxycarbene (I) to RNCX gave the hydantoin derivs. II (R = Ph, substituted phenyl, 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>; X = O, S). Competition expts. using 4-MeC<sub>6</sub>H<sub>4</sub>NCO-PhNCS showed that I reacted 11 times faster with the former irrespective of its mode of generation from either the norbornadiene III or HC(OMe)<sub>3</sub>.  
IT 43109-63-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 43109-63-3 HCAPLUS  
CN 2,4-Imidazolidinedione, 5,5-dimethoxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 418 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:515492 HCAPLUS  
DOCUMENT NUMBER: 79:115492  
ORIGINAL REFERENCE NO.: 79:18755a,18758a  
TITLE: Reaction of 1,3-disubstituted 2,2-dichloro-4,5-imidazolidinediones with secondary amines  
AUTHOR(S): Gross, Helmut; Zinner, Gerwalt  
CORPORATE SOURCE: Inst. Pharm. Chem., Tech. Univ. Braunschweig, Brunswick, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1973), 106(7), 2315-23  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 79:115492  
GI For diagram(s), see printed CA Issue.  
AB The dichloroimidazolidinediones (I; R = 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 2-MeC<sub>6</sub>H<sub>4</sub>, cyclohexyl, or Me<sub>2</sub>CH) obtained from RN:C:NR and ClCOCOC1 reacted with R<sub>1</sub>R<sub>2</sub>NH (morpholine, piperidine, or pyrrolidine) to give the diamino derivs. II, RNHCONR<sub>1</sub>R<sub>2</sub>, and (or) RNHCOCONR<sub>1</sub>R<sub>2</sub>, the occurrence and ratios of which depended on R and on the basicity of the amines. Hydrolysis of I gave III.  
IT 10319-58-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 10319-58-1 HCAPLUS  
CN Imidazolidinetrione, bis(2-methylphenyl)- (9CI) (CA INDEX NAME)

Updated Search

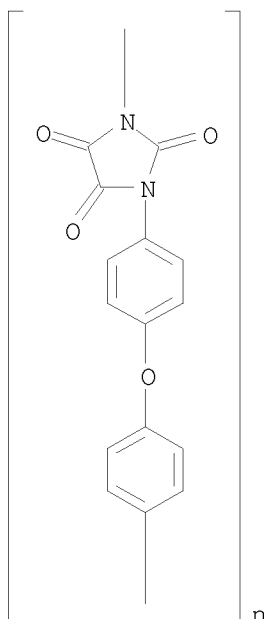
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L4 ANSWER 419 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:432424 HCAPLUS  
DOCUMENT NUMBER: 79:32424  
ORIGINAL REFERENCE NO.: 79:5271a, 5274a  
TITLE: New family of thermoplastics. Poly(parabanic acid)  
AUTHOR(S): Russo, Mario  
CORPORATE SOURCE: Italy  
SOURCE: Materie Plastiche ed Elastomeri (1973), 39(3), 218-20  
CODEN: MPOLAK; ISSN: 0025-5459  
DOCUMENT TYPE: Journal  
LANGUAGE: Italian  
AB Aromatic parabanic acid polymers (I, X = O, CH<sub>2</sub>) prepared in quant. yield by acid hydrolysis of poly(iminoimidazolidinediones) were stable to thermal oxidation at  $\leq 150^\circ\text{C}$  and retained good mech. properties at  $\leq 260^\circ\text{C}$ . The moldable polymers were self-extinguishing, had good elec. properties, and mech. properties superior to those of polyester, polyamide, and PTFE films.  
IT 31626-60-5  
RL: PEP (Physical, engineering or chemical process); PROC (Process) (heat-resistant)  
RN 31626-60-5 HCAPLUS  
CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

Updated Search

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L4 ANSWER 420 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:161056 HCAPLUS  
DOCUMENT NUMBER: 78:161056  
ORIGINAL REFERENCE NO.: 78:25864h,25865a  
TITLE: Polyester hydantoin coatings  
INVENTOR(S): Okada, Shinichi; Mitsuoka, Akio; Suzuki, Masahiro  
PATENT ASSIGNEE(S): Hitachi Cable, Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48012388	A	19730216	JP 1971-45966	19710624
JP 54021395	B	19790730		

PRIORITY APPLN. INFO.: JP 1971-45966 A 19710624

AB Heat-resistant polyester hydantoin coatings were prepared containing a hydantoin

derivative (I) [40574-91-2] or hydantoin deriv (II) [29750-27-4], and used as cable insulation coatings. Thus, I 45, ethylene glycol 55, and glycerol 22 equivalent % were heated 10 hr at 150-250.deg. to give a polyester hydantoin resin, which was dissolved in cresol, mixed with 0.5% zinc octanoate and 0.5% tetrabutyl titanate, and coated on a metal to give a heat-resistant elec.-insulation film.

IT 39378-20-6

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, heat-resistant, for cable insulation)

RN 39378-20-6 HCAPLUS

Updated Search

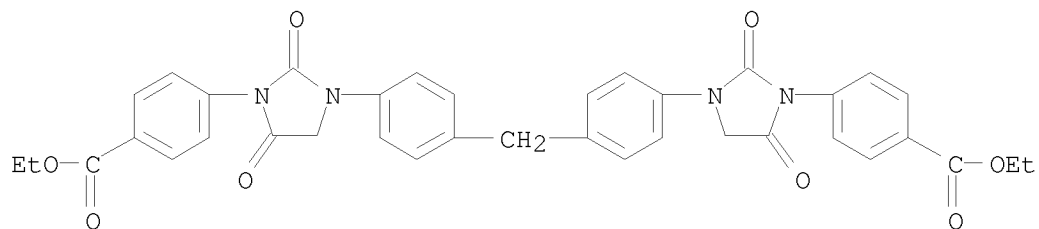
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CN Benzoic acid, 4,4'-[methylenebis[4,1-phenylene(2,5-dioxo-3,1-imidazolidinediyl)]]bis-, diethyl ester, polymer with  $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 40574-91-2

CMF C37 H32 N4 O8

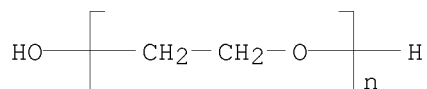


CM 2

CRN 25322-68-3

CMF (C2 H4 O)<sub>n</sub> H2 O

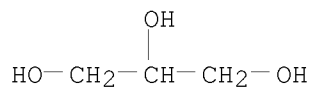
CCI PMS



CM 3

CRN 56-81-5

CMF C3 H8 O3



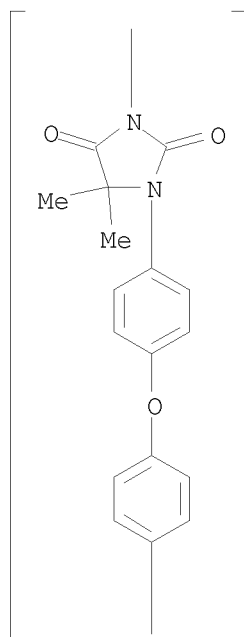
L4 ANSWER 421 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:73006 HCAPLUS  
DOCUMENT NUMBER: 78:73006  
ORIGINAL REFERENCE NO.: 78:11611a,11614a  
TITLE: Heat resistant polyhydantoin electrical insulation films  
AUTHOR(S): Reese, Eckart  
CORPORATE SOURCE: Dormagen, Fed. Rep. Ger.  
SOURCE: Kunststoffe (1972), 62(11), 733-4

Updated Search

10501317

CODEN: KUNSAV; ISSN: 0023-5563  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
AB A discussion of the thermal, mech., and elec. properties and uses of  
polyhydantoin films and coatings.  
IT 41045-17-4  
RL: USES (Uses)  
(coatings and films, properties of)  
RN 41045-17-4 HCAPLUS  
CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-  
phenylene] (9CI) (CA INDEX NAME)

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PAGE 2-A

L4 ANSWER 422 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1973:67472 HCAPLUS  
DOCUMENT NUMBER: 78:67472  
ORIGINAL REFERENCE NO.: 78:10679a,10682a  
TITLE: Biological activity of cyclic imide compounds. III.  
Antimicrobial activity of 3-phenyl  
imidazolidine-2,4-diones and related compounds  
AUTHOR(S): Fujinami, Akira; Tottori, Nobumasa; Kato, Toshiro;  
Kameda, Nobuyuki  
CORPORATE SOURCE: Pestic. Div., Sumitomo Chem. Co., Ltd., Takarazuka,  
Japan

Updated Search



10501317

SOURCE: Agricultural and Biological Chemistry (1972), 36(9),  
1623-30  
CODEN: ABCHA6; ISSN: 0002-1369

DOCUMENT TYPE: Journal

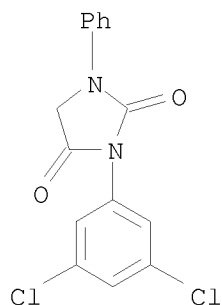
LANGUAGE: English

AB The antimicrobial activity of 3-(3',5'-dichlorophenyl)imidazolidine-2,4-dione (I) [27387-87-7] was increased against *Sclerotinia sclerotiorum* in vitro when the 1-position of the imidazolidine ring was substituted by an alkyl group to form compds. like 3-(3',5'-dichlorophenyl)-1-n-propylimidazolidine-2,4-dione [37786-74-6] or 3-(3',5'-dichlorophenyl)-1-n-butylimidazolidine-2,4-dione [37785-29-8]. The activity of I was decreased when the 5-position was substituted by alkyl groups. The n-propyl and n-butyl derivs. had the most fungicidal activity against rice sheath blight, rice brown spot, damping-off of cucumbers, and kidney bean stem rot.

IT 27387-95-7  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(fungicidal activity of)

RN 27387-95-7 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(3,5-dichlorophenyl)-1-phenyl- (CA INDEX NAME)



L4 ANSWER 423 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1973:58829 HCAPLUS

DOCUMENT NUMBER: 78:58829

ORIGINAL REFERENCE NO.: 78:9343a,9346a

TITLE: Poly(iminoimidazolidinediones) and poly(parabanic acids)

AUTHOR(S): Patton, Tad L.

CORPORATE SOURCE: Esso Res. and Eng. Co., Baytown, TX, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1971), 12(1), 162-8  
CODEN: ACPPAY; ISSN: 0032-3934

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Poly(iminoimidazolidinediones) (I, R, R1 = alkylene, arylene) were prepared by treating diisocyanates either with HCN or bis(carbamoyl cyanides) in the presence of amine organic borate phosphine, or organic Sn, Pb, Hg, or compound catalysts, and were hydrolyzed to the corresponding poly(parabanic acids) by mineral acid. The poly(parabanic acids) had much higher thermal

Updated Search

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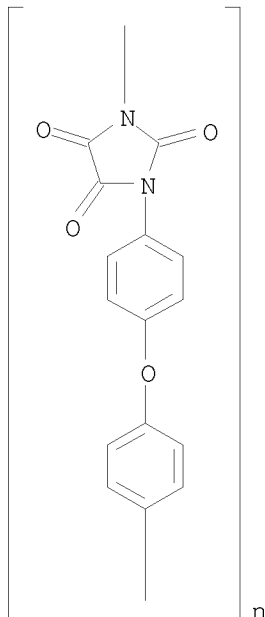
stability than the I precursors. All the poly(parabanic acids) were film-forming, and some had good mech. properties.

IT 31626-60-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of heat-resistant)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 424 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1973:44448 HCAPLUS

DOCUMENT NUMBER: 78:44448

ORIGINAL REFERENCE NO.: 78:7029a,7032a

TITLE: Polymerizable N,N'-disubstituted 2,4,5-imidazolidinetrioxones as stabilizers for high-molecular-weight products

PATENT ASSIGNEE(S): Reichhold-Albert-Chemie A.-G.

SOURCE: Fr., 51 pp.

CODEN: FRXXAK

DOCUMENT TYPE: Patent

LANGUAGE: French

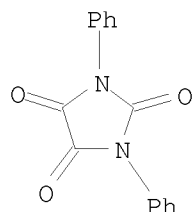
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 2042761	A5	19710212	FR 1970-11623	19700401
DE 1916932	A	19701015	DE 1969-1916932	19690402
DE 1916932	C3	19791011		
DE 1916932	B2	19790222		

Updated Search

	US 4099007	A	19780704	US 1975-586035	19750611
PRIORITY APPLN. INFO.:				DE 1969-1916932	A 19690402
				US 1970-24794	A2 19700401
				US 1972-230989	A3 19720301
AB	<p>*K*polyimidazolidinetriones** (I, R = mono- to hexavalent aryl or keteroaryl; R1,R2,R3 = aryl, alkyl; Q, Q4 = -, NHCOC2R4, NHCOC2R5, urethane, NCO; R4,R5 = C1-6 alkyl, C1-8 cycloalkyl, alkylated Ph; x = 0,1; y = 1-70; z = 1-6) were prepared by several methods. *K*oxamido acid esters**, i.e. R(NHCOC2R5)z, gave sym. products of structure II with R3(NCO)1-4; similar products of structure III (u, v, w = 0-70) were among 51 compds. prepared Thus, N-(p-chlorophenyl)-N'-butylimidazolidine-2,4,5-trione [30592-89-3] was prepared from p-chlorophenyloxamidoacid Et ester and BuNCO in Et3N.</p>				
IT	<p>6488-59-1P          RL: PREP (Preparation)          (preparation of)</p>				
RN	6488-59-1 HCAPLUS				
CN	Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)				



PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2201582	A	19720803	DE 1972-2201582	19720113
FR 2122677	A5	19720901	FR 1971-1720	19710119
BE 778108	A1	19720717	BE 1972-3714	19720117
IT 951880	B	19730710	IT 1972-19473	19720118
NL 7200724	A	19720721	NL 1972-724	19720119
GB 1344952	A	19740123	GB 1972-2562	19720119
PRIORITY APPLN. INFO.:			FR 1971-1720	A 19710119

Updated Search

10501317

AB The diesters I [X = CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>-p)<sub>2</sub> (II), (CH<sub>2</sub>)<sub>6</sub>, or p-(C<sub>6</sub>H<sub>4</sub>)<sub>20</sub>] were prepared by condensation of 2 moles p-(EtO<sub>2</sub>C)C<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CO<sub>2</sub>Et (III) with 1 mole (OCN)<sub>2</sub>X. I were used in the preparation of heat-resistant polyesters useful for coatings. Thus, refluxing III and CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NCO-p)<sub>2</sub> in m-cresol under inert gas for 20 hr gave 80% 3,3'-(methylene di-p-phenylene)bis[1-[p-(ethoxycarbonyl)phenyl]hydantoin] (II) [36945-05-8]. Heating II, HOCH<sub>2</sub>CH<sub>2</sub>OH, and Ti(Obu)<sub>4</sub> under inert gas 16 hr at 190.deg., 2 hr at 210.deg., 2 hr at 230.deg., 1 hr at 250.deg., 1 hr at 250.deg./15 mm, and 4 hr at 250.deg./0.01 mm gave 100% ethylene glycol-3,3'-(methylenedi-p-phenylene)bis[1-[p-(ethoxycarbonyl)phenyl]hydantoin] copolymer [37048-25-2] of inherent viscosity 0.53 dl/g (0.5% in m-cresol, 30.deg.).

IT 37048-25-2P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(manufacture of, heat-resistant)

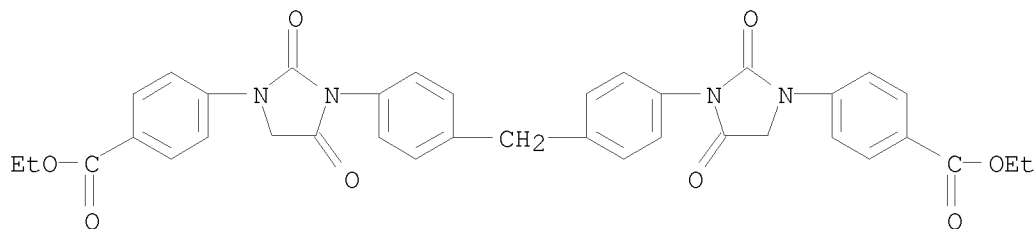
RN 37048-25-2 HCAPLUS

CN Benzoic acid, 4,4'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis-, diethyl ester, polymer with 1,2-ethanediol (9CI)  
(CA INDEX NAME)

CM 1

CRN 36945-05-8

CMF C37 H32 N4 O8



CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

L4 ANSWER 426 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:526631 HCAPLUS

DOCUMENT NUMBER: 77:126631

ORIGINAL REFERENCE NO.: 77:20865a,20868a

TITLE: Herbicidal 3-aryl-1,5-dialkylhydantoins

INVENTOR(S): Mine, Akihiko; Fujinami, Akira; Kameda, Nobuyuki;  
Hino, Naganori; Satomi, Takeo; Tateishi, Kohshi

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Ger. Offen., 34 pp.

Updated Search

10501317

DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

CODEN: GWXXBX

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2160912	A	19720622	DE 1971-2160912	19711208
DE 2160912	B2	19760722		
DE 2160912	C3	19770303		
JP 51036332	B	19761007	JP 1970-109772	19701209
US 3846441	A	19741105	US 1971-203003	19711129
CA 971969	A1	19750729	CA 1971-128965	19711130
AU 7136477	A	19730607	AU 1971-36477	19711203
GB 1353179	A	19740515	GB 1971-56249	19711203
IT 945343	B	19730510	IT 1971-54620	19711207
BR 7108105	D0	19730517	BR 1971-8105	19711207
ES 397765	A1	19750516	ES 1971-397765	19711207
NL 7116872	A	19720613	NL 1971-16872	19711208
NL 166932	B	19810515		
NL 166932	C	19811015		
FR 2117527	A5	19720721	FR 1971-44035	19711208
CS 161787	B2	19750610	CS 1971-8540	19711208
SU 578823	A3	19771030	SU 1971-1723756	19711208
CH 565770	A5	19750829	CH 1971-17967	19711209
PRIORITY APPLN. INFO.:			JP 1970-109772	A 19701209

GI For diagram(s), see printed CA Issue.

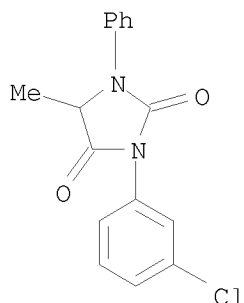
AB About 40 title compds. [I, R = C1-4 alkyl, allyl, cyclohexyl, Ph, CH2Ph; R1 = C1-5 alkyl; R2 = H, Cl, Me, 3-CF3, 3-F, 4-Br, 4-NO2, 4-EtO2C; Rn3 = H, 4-MeO, 2,4-Me2, 3,4-Me2, 3,4-Cl2, 3,5-Cl2, 2,4,6-Me3, or 2,4,5-Cl3] were prepared by reaction of aryl isocyanates with RNHCHR1CN or of anilines with ClCONRCHR1CN in the presence of pyridine and treatment of the products with HCl. I (R = R1 = Me, R2 = 2-Cl, Rn3 = H) (25 g/acre) totally killed *Digitaria sanguinalis*, *Amaranthus retroflexus*, and other weeds.

IT 37468-31-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 37468-31-8 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(3-chlorophenyl)-5-methyl-1-phenyl- (CA INDEX NAME)



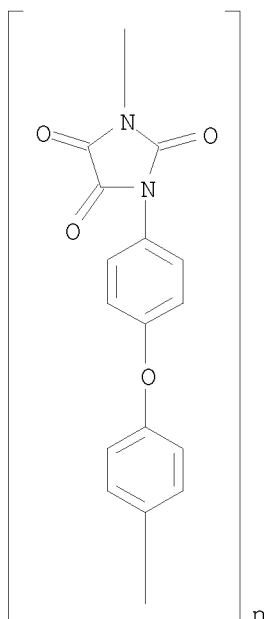
Updated Search

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L4 ANSWER 427 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:502444 HCAPLUS  
DOCUMENT NUMBER: 77:102444  
ORIGINAL REFERENCE NO.: 77:16893a,16896a  
TITLE: Imidazolidinetriane polymers  
PATENT ASSIGNEE(S): Esso Research and Engineering Co.  
SOURCE: Fr., 27 pp.  
CODEN: FRXXAK  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	FR 2088889		19720211	FR 1970-15577	19700428
AB	Poly(1,3-imidazolidine-2,4,5-trione-1,3-diyls) [I, R = (CH <sub>2</sub> ) <sub>6</sub> (II), 4-C <sub>6</sub> H <sub>4</sub> OC <sub>6</sub> H <sub>4</sub> -4, 4-C <sub>6</sub> H <sub>4</sub> CH <sub>2</sub> C <sub>6</sub> H <sub>4</sub> -4, C <sub>6</sub> H <sub>3</sub> Me, or 4-cyclohexylenemethylene-4-cyclohexylene] of good mech. and heat stability were prepared from HCN, Na cyanide, and a diisocyanate or bis(cyanoformamide) in N-methylpyrrolidinone (III) (optionally also Et <sub>3</sub> N or Me <sub>2</sub> SO), using a tertiary amine followed by HCl or HBr. Polymers were also prepared from mixts. of diisocyanates or bis(cyanoformamides), and II was also prepared by hydrolysis of poly(hexamethylene-4-imino-1,3-imidazolidine-2,5-dione-1,3-diyl). For example, a mixture of HCN, Na cyanide, and hexamethylene diisocyanate in III was cooled after reaction to 67.deg., cooled to 45.deg., and 37% HCl added dropwise to give II.				
IT	31626-60-5P RL: IMF (Industrial manufacture); PREP (Preparation) (manufacture of, heat-resistant)				
RN	31626-60-5 HCAPLUS				
CN	Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)				

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L4 ANSWER 428 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:489188 HCAPLUS

DOCUMENT NUMBER: 77:89188

ORIGINAL REFERENCE NO.: 77:14733a,14736a

TITLE: Poly(parabanic acids). New family of thermoplastics

AUTHOR(S): Henderson, Don J.; Johnson, Burnett H.; Patton, Tad L.

CORPORATE SOURCE: Esso Res. and Eng. Co., Baytown, TX, USA

SOURCE: Technical Papers - Society of Plastics Engineers  
(1972), 18(Pt. 2), 669-74

CODEN: SPEPAU; ISSN: 0583-9580

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Films and parts molded from two poly(parabanic acids) (I, R is an aromatic moiety) exhibited outstanding strength, dimensional stability, and toughness. The polymers, PPA-E and PPA-M, were synthesized by the hydrolysis of poly(iminoimidazolidinediones).

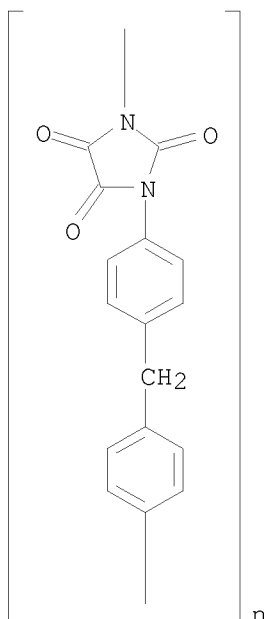
IT 37725-18-1

RL: PRP (Properties)  
(properties of)

RN 37725-18-1 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

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L4 ANSWER 429 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:488889 HCAPLUS

DOCUMENT NUMBER: 77:88889

ORIGINAL REFERENCE NO.: 77:14689a,14692a

TITLE: Poly(hydantoin amides) and poly(hydantoin esters)

AUTHOR(S): Salle, Robert; Sillion, Bernard

CORPORATE SOURCE: Dep. Rech., C.E.N., Grenoble, Fr.

SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,  
Serie C: Sciences Chimiques (1972), 274(22), 1795-8  
CODEN: CHDCAQ; ISSN: 0567-6541

DOCUMENT TYPE: Journal

LANGUAGE: French

AB Hydantoin diesters [I,  $\text{R}_1 = \text{p,p}'\text{-C}_6\text{H}_4\text{CH}_2\text{C}_6\text{H}_4$ ,  $\text{p,p}'\text{-C}_6\text{H}_4\text{OC}_6\text{H}_4$ , or  $(\text{CH}_2)_6$ ] were copolymd. with  $\text{HOCH}_2(\text{CH}_2)_x\text{CH}_2\text{OH}$  ( $x = 0, 2$ , or  $4$ ), or  $\text{HOCH}_2\text{CMe}_2\text{CH}_2\text{OH}$  at  $190\text{--}250^\circ\text{C}$ . over  $\sim 20$  hr in the presence of  $\sim 0.5\%$   $(\text{BuO})_4\text{Ti}$  to give the poly(hydantoin esters). Poly(hydantoin amide) (II) and III ( $\text{R}_2 = \text{p,p}'\text{-C}_6\text{H}_4\text{CH}_2\text{C}_6\text{H}_4$  or  $\text{p,p}'\text{-C}_6\text{H}_4\text{OC}_6\text{H}_4$ ) were prepared from  $\text{HO}_2\text{CC}_6\text{H}_4\text{NHCH}_2\text{CO}_2\text{Et}$  and the corresponding diisocyanate heated  $20$  hr at  $210^\circ\text{C}$ . and  $\sim 12$  hr at  $250^\circ\text{C}$ .

IT 36945-05-8P

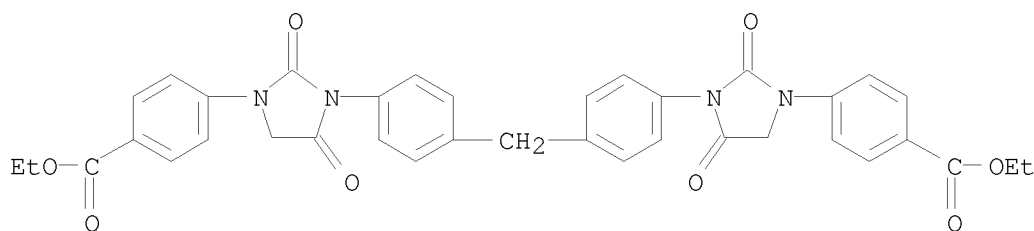
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 36945-05-8 HCAPLUS

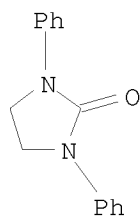
CN Benzoic acid, 4,4'-[methylenebis[4,1-phenylene(2,4-dioxo-3,1-imidazolidinediyl)]]bis-, diethyl ester (9CI) (CA INDEX NAME)



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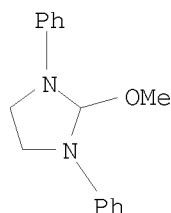
L4 ANSWER 430 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:488373 HCAPLUS  
DOCUMENT NUMBER: 77:88373  
ORIGINAL REFERENCE NO.: 77:14589a,14592a  
TITLE: Pyrolysis of N-[ $\beta$ -(N"-phenylcarbamyl)ethyl]-N,N'-diphenylurea. Synthesis and properties of the decomposition product, 2-(phenylimino)-3-phenyloxazolidine and its analogs  
AUTHOR(S): Beachell, H. C.; Chu-Pham-Ngoc-Son; Nguyen-Huu-Tinh  
CORPORATE SOURCE: Dep. Chem., Univ. Delaware, Newark, DE, USA  
SOURCE: Journal of Organic Chemistry (1972), 37(3), 422-5  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI For diagram(s), see printed CA Issue.  
AB Instead of the expected products (CO<sub>2</sub>, PhNH<sub>2</sub>, and 1,3-diphenyl-2-imidazolidinone), pyrolysis of N-[ $\beta$ -(phenylcarbamoyl)ethyl]-N,N'-diphenylurea gave 11 products. The major product, 2-(phenylimino)-3-phenyloxazolidine (I), was independently synthesized by ring closure of 1-(2-hydroxyethyl)-1,3-diphenylurea in acid. Eight other 2-(arylimino)-3-aryloxazolidines (II) were similarly prepared. In boiling 48% HBr, II gave 1,3-diaryl-2-imidazolidinones.  
IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 431 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:434418 HCAPLUS  
DOCUMENT NUMBER: 77:34418  
ORIGINAL REFERENCE NO.: 77:5731a,5734a  
TITLE: Reactivity of electron-rich olefins. Reactions of

Updated Search

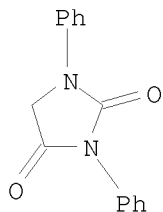
tetraaminoethylenes with amines and hydrazines  
 AUTHOR(S): Hocker, Juergen; Merten, Rudolf  
 CORPORATE SOURCE: Wiss. Hauptlab., Farbenfabr. Bayer A.-G., Leverkusen,  
 Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1972), 105(5), 1651-63  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 AB Reaction of bis[1,3-diphenyl-2-imidazolidinylidene] (I) with primary  
 amines RNH<sub>2</sub> gave 93-100% ArNHCH<sub>2</sub>CH<sub>2</sub>N(CH:NR)Ar (II; Ar = Ph; R =  
 cyclohexylmethyl, cyclohexyl, Ph, substituted phenyl, PhCH<sub>2</sub>, or  
 2-pyridyl). Reaction of I with secondary amines RR<sub>1</sub>NH gave the  
 corresponding 2-(disubstituted amino)-1,3-diphenylimidazolidines (III).  
 Reaction of bis[1,3-di-1-naphthyl-2-imidazolidinylidene] with RNH<sub>2</sub> gave II  
 (Ar =  $\alpha$ -naphthyl; R = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub> or 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>NH).  
 IT 25220-17-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 25220-17-1 HCAPLUS  
 CN Imidazolidine, 2-methoxy-1,3-diphenyl- (CA INDEX NAME)



Updated Search

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520-560, 430-510 cm<sup>-1</sup> are attributed to the  $\beta$  ring +  
 $\delta C:O_i \cdot p$ ,  $\beta$  ring +  $\delta C:O_i \cdot p$ ,  $\beta$   
ring +  $\gamma C:O$ ,  $\gamma C:O$  +  $\beta$  ring modes, resp.  
IT 3157-03-7  
RL: PRP (Properties)  
(ir spectrum of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 433 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:155482 HCAPLUS  
DOCUMENT NUMBER: 76:155482  
ORIGINAL REFERENCE NO.: 76:25328h,25329a  
TITLE: Aromatic disulfonamides in dyeing of polyamide fibers  
INVENTOR(S): Wolf, Gerhard Dieter; Nischk, Guenther; Blankenstein, Guenter  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 16 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2034477	A	19720127	DE 1970-2034477	19700711
GB 1356627	A	19740612	GB 1971-27891	19710615
NL 7109462	A	19720113	NL 1971-9462	19710708
CA 944884	A1	19740402	CA 1971-117726	19710708
BE 769807	A1	19711116	BE 1971-105742	19710709
FR 2098340	A5	19720310	FR 1971-25339	19710709
FR 2098340	B1	19760206		
US 3812085	A	19740521	US 1971-161285	19710709
US 3849376	A	19741119	US 1973-386272	19730807
PRIORITY APPLN. INFO.:			DE 1970-2034477	A 19700711
			US 1971-161285	A2 19710709

AB A disulfonamide, such as bis(p-tolylsulfonyl)amine (I) [3695-00-9] or 1,3-bis(1-naphthylsulfonamido)benzene [34759-37-0], is added to a polyamide, e.g., 3-(p-aminophenyl)-7-amino-2,4(1H,3H)-quinazolinedione-isophthaloyl chloride copolymer (II) [25736-76-9] or 2-[3-(p-aminophenoxy)phenyl]-3-methyl-6-amino-4(3H)quinazolinone-terephthaloyl chloride copolymer [26656-24-6], to improve the dyeability with basic dyes of fibers made from these polyamides. Thus, 134 parts

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3-(p-aminophenyl)-7-amino-2,4(1H,3H)-quinazolinedione and 105.5 parts isophthaloyl chloride were copolymd. in AcNMe<sub>2</sub> to prepare a II solution, mixed with 13 parts I, spun into fibers, and dyed with Astrazon Red RL for 1.5 hr at 120.deg. and pH 4.5. A solution of 500 mg dyed fibers in 25 ml AcNMe<sub>2</sub> had absorbance 1.0 at 475 mμ, compared with 0.1 for a solution of dyed II containing no I.

IT 25852-66-8

RL: USES (Uses)

(fiber, dyeability improvement of, by sulfonimides)

RN 25852-66-8 HCAPLUS

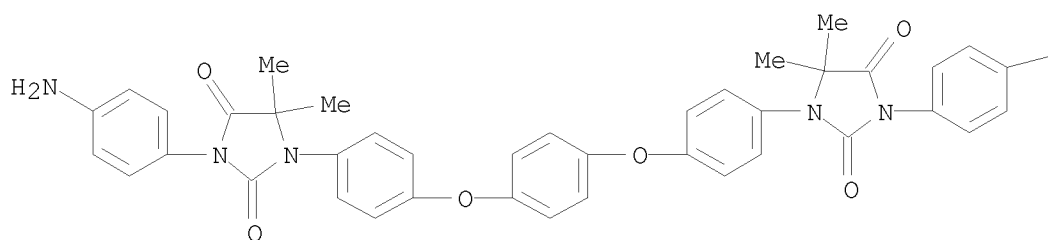
CN 1,4-Benzenedicarbonyl dichloride, polymer with 1,1'-[1,4-phenylenebis(oxy-4,1-phenylene)]bis[3-(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione] (9CI) (CA INDEX NAME)

CM 1

CRN 24802-16-2

CMF C40 H36 N6 O6

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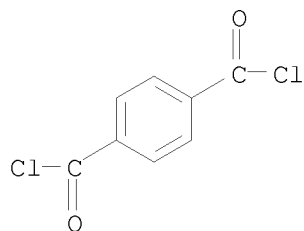
PAGE 1-B

—NH<sub>2</sub>

CM 2

CRN 100-20-9

CMF C8 H4 Cl<sub>2</sub> O<sub>2</sub>



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L4 ANSWER 434 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:154731 HCAPLUS  
DOCUMENT NUMBER: 76:154731  
ORIGINAL REFERENCE NO.: 76:25217a,25220a  
TITLE: Poly(iminohydantoins)  
INVENTOR(S): Craven, James M.  
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3645978	A	19720229	US 1970-71287	19700826
PRIORITY APPLN. INFO.:			US 1970-71287	A 19700826

AB P-phenylenebis(aminoacetonitrile) (I) [34890-62-5] and 4,4'-oxybis(phenylaminoacetonitrile) [34890-63-6], prepared, were mixed with methylenebis(4-phenyl isocyanate) (II) or 2,4-toluene diisocyanate and ethylene glycol dimethyl ether (III), applied to glass plates, and heated. When hot-pressed, the plates were bonded together by a void-free poly(iminohydantoin) (IV, R1 = p-C6H4 or p,p'-C6H4OC6H4, R2 = p,p'-C6H4CH2C6H4 or toluene-2,4-diyl) adhesive polycondensate. Thus, a mixture of aqueous NaHSO4 and HCHO was added to hot aqueous p-C6H4(NH2)2, KCN

added, and the mixture heated to give a copolymer (I, R1 = p-C6H4, R2 = p,p'-C6H4CH2C6H4) [9040-23-7]. Also prepared were copolymer (I, R1 = p,p'-C6H4OC6H4, R2 = toluene-2,4-diyl) [9040-24-8] glass laminates.

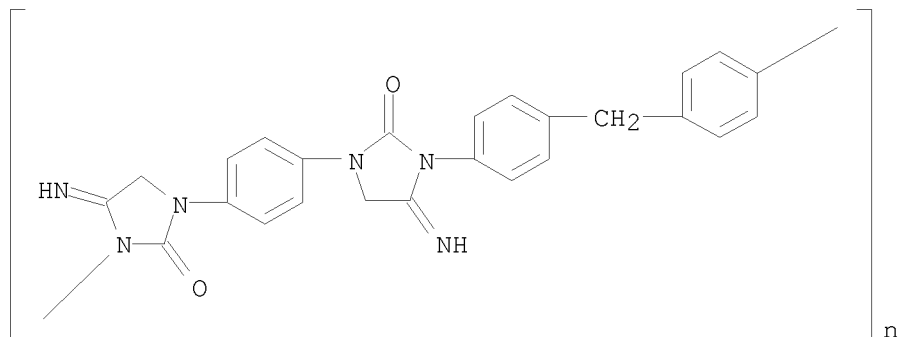
IT 36251-39-5

RL: USES (Uses)

(high temperature adhesives)

RN 36251-39-5 HCAPLUS

CN Poly[(5-imino-2-oxo-1,3-imidazolidinediyl)-1,4-phenylene(4-imino-2-oxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



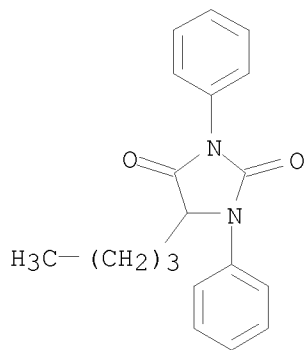
L4 ANSWER 435 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:140807 HCAPLUS

Updated Search

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DOCUMENT NUMBER: 76:140807  
ORIGINAL REFERENCE NO.: 76:22867a,22870a  
TITLE: Hydantoin derivatives  
INVENTOR(S): Shirai, Hideaki; Yashiro, Yu; Miwa, Kazutoshi  
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd.  
SOURCE: Jpn. Tokkyo Koho, 2 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 47003113	B4	19720127	JP	19670923
GI	For diagram(s), see printed CA Issue.				
AB	I, R1 = Ph, R2 = PhCH2; R1 = Ph, R2 = Bu; R1 = Ph, R2 = cyclohexyl; R1 = PhCH2, R2 = Ph; R1 = Bu, R2 = Ph), analgesics and antispasmodics, were manufactured from 1 (or 3)-phenyl-5-butylhydantoin and an alkyl (e.g., cyclohexyl, PhCH2) halide. E.g., 1-phenyl-5-butylhydantoin was treated with NaOH and the resulting Na salt refluxed 8 hr in PhMe with PhCH2Cl to give I (R1 = Ph, R2 = PhCH2).				
IT	26558-83-8P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)				
RN	26558-83-8 HCAPLUS				
CN	2,4-Imidazolidinedione, 5-butyl-1,3-diphenyl- (CA INDEX NAME)				



L4 ANSWER 436 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:114100 HCAPLUS  
DOCUMENT NUMBER: 76:114100  
ORIGINAL REFERENCE NO.: 76:18431a,18434a  
TITLE: Precipitation of solid polyhydantoin from phenolic solutions  
INVENTOR(S): Merten, Rudolf; Fischer, Rolf; Hoffmann, Albrecht  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 11 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German

Updated Search

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FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2017207	A	19711021	DE 1970-2017207	19700410
BE 765587	A1	19710830	BE 1971-102066	19710409
FR 2085992	A1	19711231	FR 1971-12796	19710409

PRIORITY APPLN. INFO.: DE 1970-2017207 A 19700410

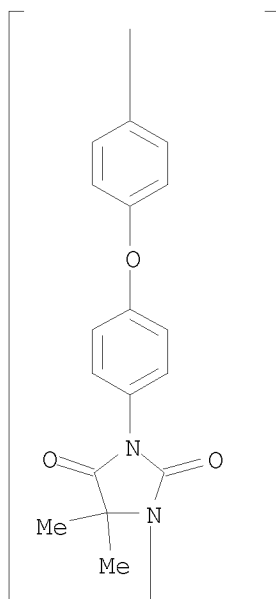
AB Solid polyhydantoins, prepared from, e.g., N,N'-bis[2-(methoxycarbonyl)-2-propyl]-4,4'-diaminodiphenylmethane (I) and 4,4'-diisocyanatodiphenylmethane (II) in cresol or phenol were precipitated with aqueous Na hydroxide [1310-73-2]. Thus, 173 parts of a 15% solution of a polyhydantoin prepared from stoichiometric I-II mixture in cresol of viscosity (25.deg.) 12,000 cP was diluted with 160 parts crude cresol and 200 parts toluene. This solution was added with stirring to a mixture of 400 volume parts toluene, 100 weight parts NaOH, and 600 weight parts H2O. The precipitate was filtered, adhering toluene removed by treatment with H2O vapor, and subsequently washed with weakly acid, cold, and hot water to give solid I-II copolymer in quant. yield, containing <0.5% cresol, of viscosity 11,000 cP (15% in cresol at 25.deg.).

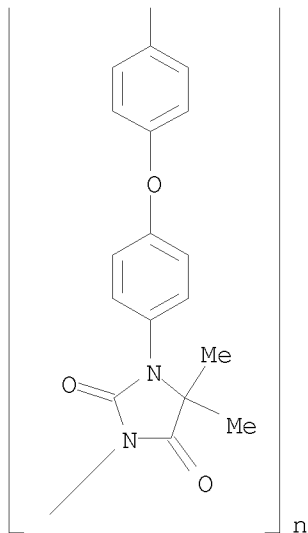
IT 36247-65-1  
RL: PROC (Process)  
(precipitation of, with base)

RN 36247-65-1 HCAPLUS

CN Poly[(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

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L4 ANSWER 437 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1972:87078 HCAPLUS  
 DOCUMENT NUMBER: 76:87078  
 ORIGINAL REFERENCE NO.: 76:14013a,14016a  
 TITLE: High-molecular-weight aromatic polyamides fibers and films dyeable with basic dyes  
 INVENTOR(S): Wolf, Gerhard Dieter; Nischk, Guenther; Blankenstein, Guenter  
 PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
 SOURCE: Ger. Offen., 20 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2017509	A	19711104	DE 1970-2017509	19700413
NL 7104697	A	19711015	NL 1971-4697	19710407
US 3676525	A	19720711	US 1971-132170	19710407
BE 765649	A1	19710830	BE 1971-102119	19710413
FR 2086037	A5	19711231	FR 1971-12998	19710413
FR 2086037	B1	19760206		
GB 1353348	A	19740515	GB 1971-24665	19710419
US 3786024	A	19740115	US 1972-219819	19720121
US 28314	E	19750121	US 1974-407394	19740115
PRIORITY APPLN. INFO.:			DE 1970-2017509	A 19700413
			US 1971-132170	A3 19710407

AB The title fibers were prepared by polymerization of Na bis(m-



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aminophenyl)disulfimide (I), bis(4-chloro-3-aminophenyl)disulfimide, or 4-chloro-3-aminophenyl(3-aminophenyl)disulfimide with isophthaloyl chloride (II) in the presence of 3-(p-aminophenyl)-7-amino-2,4-(1H,3H)quinazolinedione (III). Thus, a N-methylpyrrolidone (IV) solution containing a 134:101.5 (weight ratio) III-II polymer was mixed with a IV solution containing a 10.7:16.2:13.5 (weight ratio) 3-(p-aminophenyl)-7-amino-2,4(1H,3H)quinazolinedione-isophthaloyl chloride-sodium bis(m-aminophenyl)disulfimide copolymer [32650-21-8] and spun at 10 m/min into an aqueous AcNMe2 solution at 20.deg. to give fibers with tear resistance 3.9-4.3 g/dtex at 5% elongation. The fibers were dyed by a 5% bath containing a 4-nitro-2-cyanoaniline-N-ethyl-N-[(dimethylamino)ethyl]aniline azo dye, quaternized by Me2SO4, to give colored fibers with a 1.7 extinction coefficient compared to 0.15 for a II-III polymer fiber.

IT 36521-57-0  
RL: USES (Uses)  
(fiber, dyeable with basic dyes)

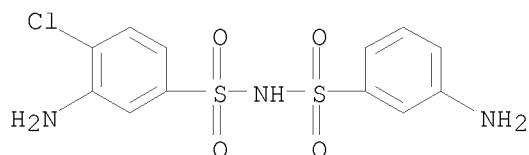
RN 36521-57-0 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 3-amino-N-[(3-aminophenyl)sulfonyl]-4-chlorobenzenesulfonamide monosodium salt and 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

CM 1

CRN 47189-12-8

CMF C12 H12 Cl N3 O4 S2 . Na



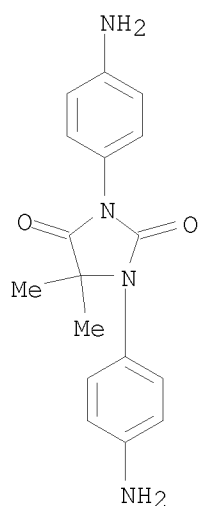
● Na

CM 2

CRN 24689-97-2

CMF C17 H18 N4 O2

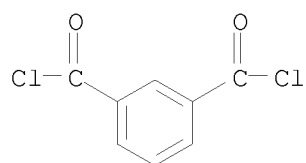
10501317



CM 3

CRN 99-63-8

CMF C8 H4 Cl2 O2



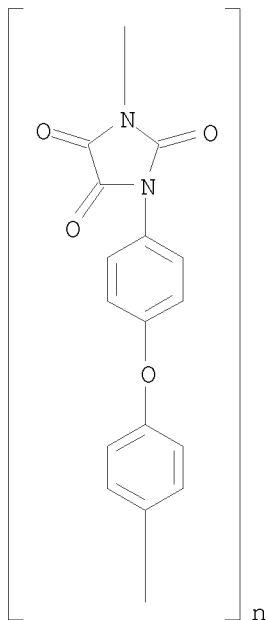
L4 ANSWER 438 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:73026 HCAPLUS  
DOCUMENT NUMBER: 76:73026  
ORIGINAL REFERENCE NO.: 76:11765a,11768a  
TITLE: Polymers containing 1,3-imidazolidin-1,3-diyl rings  
INVENTOR(S): Patton, Tad L.  
PATENT ASSIGNEE(S): Esso Research and Engineering Co.  
SOURCE: Ger. Offen., 29 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
DE 2018182	A	19711104	DE 1970-2018182	19700416
DE 2018182	C3	19800911		
DE 2066093	C2	19820603	DE 1970-2066093	19700416
PRIORITY APPLN. INFO.:			DE 1970-2018182	19700416

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- AB Imidazolidinetriane derivative polymers I (R = alkylene, arylene) are prepared by amine-catalyzed polymerization of diisocyanates with hydrocyanic acid or of diisocyanates with dicyanoformamides, or by acid hydrolysis of imidazolidinedione derivative polymers II prepared similarly with cyanide catalysts. Simultaneous addition of 28 g HCN in 168 g N-methylpyrrolidone (III) and 175 g hexamethylene diisocyanate to 500 ml III and 15 ml sodium cyanide [143-33-9]-saturated III followed by cooling to 30.deg., addition of 24 g triethylamine [121-44-8] and warming to 67.deg. gave in 1 hr poly[(5-imino-2,4-dioxo-1,3-imidazolidinediyl)hexamethylene] (II, R = hexamethylene) [34031-20-4], intrinsic viscosity (DMF, 25.deg.) 0.21. Dropwise addition of 50 ml 37% HCl to 100 g of this polymer in 1500 ml III gave poly[(2,4,5-trioxo-1,3-imidazolidinediyl)hexamethylene] (I, R = hexamethylene) [34031-19-1], intrinsic viscosity 0.19. The preparation of copolymers from diisocyanate mixts. is also described.
- IT 31626-60-5P  
RL: PREP (Preparation)  
(preparation of)
- RN 31626-60-5 HCAPLUS
- CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)



L4 ANSWER 439 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1972:60287 HCAPLUS  
DOCUMENT NUMBER: 76:60287  
ORIGINAL REFERENCE NO.: 76:9721a,9724a  
TITLE: Soluble diaminophenylhydantoin-isophthaloyl  
copolyamides  
INVENTOR(S): Wolf, Gerhard Dieter; Bentz, Francis; Blankenstein,  
Guenter

Updated Search

10501317

PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2009741	A	19710930	DE 1970-2009741	19700303
DE 2009741	B2	19791122		
DE 2009741	C3	19800731		

PRIORITY APPLN. INFO.: DE 1970-2009741 A 19700303  
AB Heat resistant title copolymers, soluble in hot, polar organic solvents and used

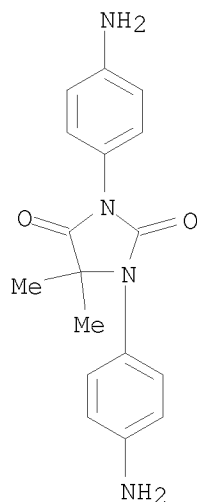
for the manufacture of fibers or films were obtained from isophthaloyl chloride (I), m-phenylenediamine (II) or 2,7-diaminophenoxathiin S,S-dioxide [27441-74-3], and the title hydantoins, e.g. p-bis[p-(5,5-dimethyl-3-(p-aminophenyl)-2,4-dioxoimidazolidinyl)phenoxy]benzene (III) [24802-16-2]. Thus, polymerization of II 45.4, III [prepared from p-nitrophenyl isocyanate and 1,4-bis[p-(1-cyano-1-methylethylamino)phenoxy]benzene] 97.5, and I 1137 parts in 770 parts N-methylpyrrolidinone at 5-15.deg. gave 22% solution of I-II-III copolymer of viscosity 1100 P at 20.deg.. Wet spinning of this solution at 20.deg. and 10-15 m/min gave fibers which after 2-step stretching 1:4-6 had tenacity 3.1 g/denier and residual strength 50% upon heating 500 hr at 250.deg..

IT 24689-97-2P

RL: PREP (Preparation)  
(preparation of)

RN 24689-97-2 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-bis(4-aminophenyl)-5,5-dimethyl- (CA INDEX NAME)



10501317

L4 ANSWER 440 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:59531 HCAPLUS

DOCUMENT NUMBER: 76:59531

ORIGINAL REFERENCE NO.: 76:9593a,9596a

TITLE: Orthoamides. XX. Reactions of amide acetals and bis(dimethylamino)methoxymethane (aminal ester) with benzoyl azides

AUTHOR(S): Brederick, Hellmut; Simchen, Gerhard; Beck, Gerhard

CORPORATE SOURCE: Inst. Org. Chem., Univ. Stuttgart, Stuttgart, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1971), 104(12), 3794-803

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

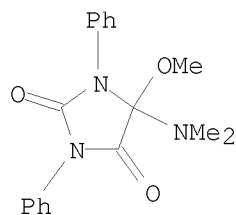
AB On thermal reaction of HC(OR)2NMe2 (I, R=Me and Et) with p-R1C6H4CON3 (II, R1=H and EtO), p-R1C6H4NHC(=O)R and the corresponding parabanic acid O,N-acetals were obtained in 60-91% yield by secondary reaction of the intermediate phenyl isocyanates. Thermal reaction of II (R=H) with 2-(dimethylamino)-1,3-dioxolane yielded as secondary products triphenylisocyanuric acid, PhN:CHNMe2, and 3-phenyl-2-oxazolidinone; with 2-(dimethylamino)-4,4,5,5-tetramethyl-1,3-dioxolane, PhNHCONMe2 and Me2C:CMe2 were obtained. On photochem. reaction of I (R=Me) with II, p-R1C6H4CONHNMe2 formed via acyl nitrene intermediates. Both thermal and photochem. reaction of I (R=Me) with II (R1=NO2) yielded MeN3, DMF, and p-O2N-C6H4CO2Me. Both types of reaction of HC(OMe)(NMe2)2 with II (R1=H) gave MeN3, DMF, and PhCONMe2 were obtained.

IT 25716-01-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 25716-01-2 HCAPLUS

CN 2,4-Imidazolidinedione, 5-(dimethylamino)-5-methoxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 441 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:552906 HCAPLUS

DOCUMENT NUMBER: 75:152906

ORIGINAL REFERENCE NO.: 75:24113a

TITLE: Basically dyeable, high-molecular-weight polyamides

INVENTOR(S): Wolf, Gerhard Dieter; Nischk, Guenther; Blankenstein, Guenter

PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.

SOURCE: Ger. Offen., 18 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

Updated Search

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LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2000927	A	19710715	DE 1970-2000927	19700109
PRIORITY APPLN. INFO.:			DE 1970-2000927	A 19700109

GI For diagram(s), see printed CA Issue.

AB High-mol.-weight polyamides dyeable with basic dyes were composed of 2-20 mole % of disulfimide groups (AAr1SO2N(Z)SO2Ar2A or A2Ar3SO2N(Z)SO2R where Ar1 and Ar2 are the same or different bivalent aromatic groups composed of  $\geq 1$  condensed aromatic rings or of aromatic rings connected by -CH2-, -O-, -S-, or -SO2-groups; Ar3 is a trivalent aromatic group; R=C1-4 alkyl; Z is H or an alkali metal; A is -CONH- or -NHCO-; and 80-98 mole % diamines and carboxylic dihalides. for example, m-nitrobenzenesulfonamide was treated with m-nitrobenzenesulfonyl chloride in caustic soda followed by catalytic hydrogenation to give sodium bis(m-aminophenyl)disulfimide (I). I 10.8, 3-(p-aminophenyl)-7-amino-2,4-(1H,3H)-quinazolinedione (II) 153, and isophthaloyl chloride 122 parts were polymerized and spun into fibers. The fibers were stretched, dried, and heat treated and were dyed with fibers of II-isophthaloyl chloride copolymer at 120° in a bath. The disulfidemodified fibers had extinction coefficient 1.8, while the unmodified fibers had coefficient 0.15.

IT 34514-79-9

RL: USES (Uses)

(fiber, basically dyeable)

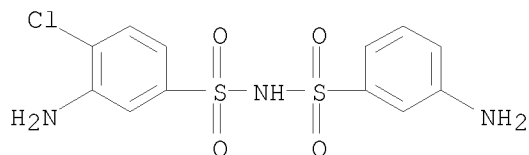
RN 34514-79-9 HCAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 3-amino-N-[(3-aminophenyl)sulfonyl]-4-chlorobenzenesulfonamide and 1,3-bis(4-aminophenyl)-5,5-dimethyl-2,4-imidazolidinedione (9CI) (CA INDEX NAME)

CM 1

CRN 34350-22-6

CMF C12 H12 Cl N3 O4 S2

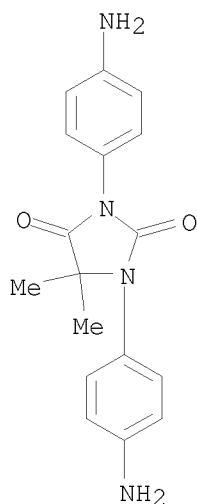


CM 2

CRN 24689-97-2

CMF C17 H18 N4 O2

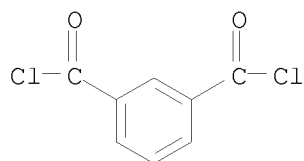
10501317



CM 3

CRN 99-63-8

CMF C8 H4 C12 O2



L4 ANSWER 442 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:552165 HCAPLUS

DOCUMENT NUMBER: 75:152165

ORIGINAL REFERENCE NO.: 75:24009a

TITLE: Soluble polyquinazolones

AUTHOR(S): Radlmann, Eduard; Schramm, Juergen; Gallus, Manfred; Nischk, Guenther

CORPORATE SOURCE: Org.-Wiss. Lab., Farbenfabrik. Bayer A.-G., Dormagen/Rhein, Fed. Rep. Ger.

SOURCE: Makromolekulare Chemie (1971), 145, 21-38  
CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

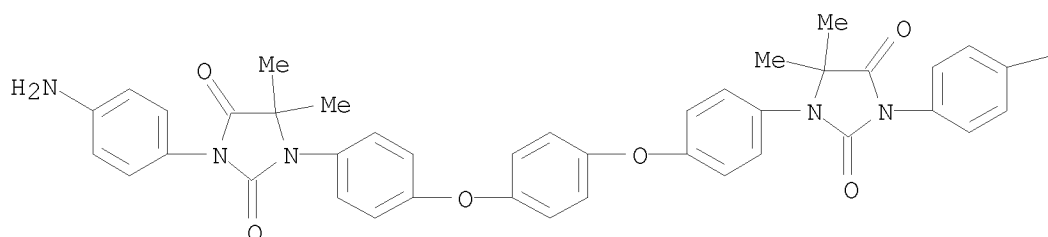
AB Aromatic diamines containing hydantoin groups, e.g. I, or oligomeric polyethersulfones with aminophenyl endgroups, e.g. II (n = 3-4); were condensed with dibenzoxazinones, e.g. III (R = Ph or Me), to give polyquinazolones which were soluble in DMF, AcNMe<sub>2</sub>, and N-methylpyrrolidone and had softening points ranging from 220 to >300°. The products had good elec. properties and were potentially useful in elec. insulating

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films.  
IT 28323-12-8  
RL: USES (Uses)  
(in quinazoline derivative polymer preparation)  
RN 28323-12-8 HCAPLUS  
CN [6,6'-Bi-4H-3,1-benzoxazine]-4,4'-dione, 2,2'-dimethyl-, polymer with  
1,1'-[p-phenylenebis(oxy-p-phenylene)]bis[3-(p-aminophenyl)-5,5-  
dimethylhydantoin] (8CI) (CA INDEX NAME)  
  
CM 1  
  
CRN 24802-16-2  
CMF C40 H36 N6 O6

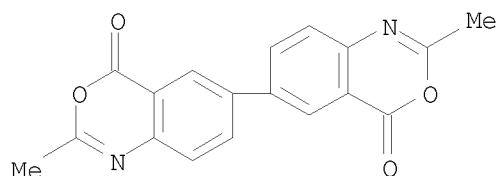
PAGE 1-A



PAGE 1-B

—NH<sub>2</sub>

CM 2  
  
CRN 2130-57-6  
CMF C18 H12 N2 O4



L4 ANSWER 443 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1971:142658 HCAPLUS  
DOCUMENT NUMBER: 74:142658  
ORIGINAL REFERENCE NO.: 74:23057a,23060a  
TITLE: Polymerization of lactams  
INVENTOR(S): Kasayuki, Takatsune; Imanaka, Hiroshi

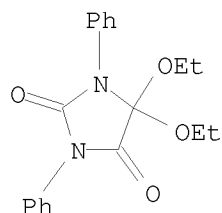
Updated Search



10501317

PATENT ASSIGNEE(S): Toyo Spinning Co., Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 2 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 46004186	B4	19710202	JP	19680302
AB	Polylactams were prepared at lower temps. than previously by use of hydantoin derivs., e.g. 1,3-diphenyl-4,4-diethoxyhydantoin (I), as activators. Thus, Na was dissolved in ε-caprolactam, I was added, and the mixture heated to give poly-ε-caprolactam.				
IT	31274-54-1				
	RL: CAT (Catalyst use); USES (Uses) (catalysts, for polymerization of caprolactam)				
RN	31274-54-1	HCAPLUS			
CN	Imidazolidinetrione, diphenyl-, 4-(diethyl acetal) (8CI) (CA INDEX NAME)				



L4 ANSWER 444 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1971:53798 HCAPLUS  
 DOCUMENT NUMBER: 74:53798  
 ORIGINAL REFERENCE NO.: 74:8677a,8680a  
 TITLE: N, N'-Substituted 2,4,5-trioxoimidazolidines  
 INVENTOR(S): Kraft, Kurt A.; Reese, Johannes  
 PATENT ASSIGNEE(S): Reichhold-Albert-Chemie A.-G.  
 SOURCE: Ger. Offen., 30 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1916932	A	19701015	DE 1969-1916932	19690402
DE 1916932	C3	19791011		
DE 1916932	B2	19790222		
AT 295517	B	19720110	AT 1970-2870	19700327
BE 748296	A	19701001	BE 1970-748296	19700401
FR 2042761	A5	19710212	FR 1970-11623	19700401
BR 7017932	D0	19730213	BR 1970-217932	19700401

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SE 385884	B	19760726	SE 1970-4497	19700401
JP 51030072	B	19760830	JP 1970-27048	19700401
CH 586242	A5	19770331	CH 1970-4805	19700401
GB 1317001	A	19730516	GB 1970-15731	19700402
CA 992536	A1	19760706	CA 1970-78970	19700402
NL 154735	B	19771017	NL 1970-4757	19700402
US 3928376	A	19751223	US 1972-230989	19720301
SE 7414667	A	19741121	SE 1974-14667	19741121
SE 411624	C	19800508		
US 4099007	A	19780704	US 1975-586035	19750611
US 4096130	A	19780620	US 1975-593010	19750703

PRIORITY APPLN. INFO.:

DE 1969-1916932	A	19690402
DE 1969-1920845	A	19690424
US 1970-24794	A2	19700401
US 1972-230989	A3	19720301

GI For diagram(s), see printed CA Issue.

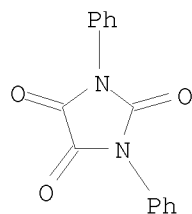
AB The title compds. are obtained by treatment of alkyl oxamates  $\text{NHCOCO}_2\text{R}_2$  with an isocyanate,  $\text{R}_1\text{NCO}$ . Thus,  $p\text{-ClC}_6\text{H}_4\text{NH}_2$  and  $(\text{CO}_2\text{Et})_2$  refluxed until the temperature changed from  $150^\circ$  to  $115\text{--}16^\circ$  and the mixture diluted with ligroin yielded 91%  $p\text{-ClC}_6\text{H}_4\text{NHCOCO}_2\text{Et}$  (I), m.  $146^\circ$ . I and  $\text{Bu-NCO}$  heated 5 hr at  $150^\circ$  (oil bath) in xylene and  $\text{NEt}_3$  and the mixture diluted with ligroin yielded II ( $\text{R} = \text{Ph}$ ,  $\text{R}_1 = \text{Bu}$ ). Similarly prepared was II ( $\text{R} = \text{R}_1 = \text{Ph}$ ), m.  $203\text{--}4^\circ$ , and 10 addnl. II. Likewise condensation of  $\alpha\text{-Cl}_{10}\text{H}_7\text{NHCOCO}_2\text{Et}$  with  $\text{PhNCO}$  in  $\text{PhMe}$  containing  $\text{MeOLi}$  in  $\text{HCONMe}_2$  under reflux 45 min gave 82.5% II ( $\text{R} = \alpha\text{-Cl}_{10}\text{H}_7$ ,  $\text{R}_1 = \text{Ph}$ ), m.  $203\text{--}6^\circ$  ( $\text{BuOH}$ ). Similarly were obtained 8 addnl. II. Condensation with isocyanates was extended to  $\text{R}_2\text{O}_2\text{CCONHR}_4\text{NHCOCO}_2\text{R}_3$ . Thus,  $p\text{-EtO}_2\text{-CCONHC}_6\text{H}_4\text{NHCOCO}_2\text{Et}$  and  $m\text{-ClC}_6\text{H}_4\text{NCO}$  in xylene and  $\text{AcNMe}_2$  stirred at  $80^\circ$  with rapid addition of  $\text{Bu}_3\text{N}$  in xylene and the mixture refluxed 5 hr yielded 98% III ( $\text{R}_2 = \text{R}_3 = m\text{-ClC}_6\text{H}_4$ ,  $\text{R}_4 = p\text{-C}_6\text{H}_4$ ), m.  $>360^\circ$ . Similarly were prepared 7 addnl. III.

IT 6488-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 445 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:23719 HCAPLUS

DOCUMENT NUMBER: 74:23719

ORIGINAL REFERENCE NO.: 74:3841a, 3844a

TITLE: Poly(imidazolidinetriones) for coatings and films

INVENTOR(S): Reese, Johannes; Kraft, Kurt

PATENT ASSIGNEE(S): Reichhold-Albert-Chemie A.-G.

Updated Search

10501317

SOURCE: Ger. Offen., 19 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 1920845	A	19701105	DE 1969-1920845	19690424
AT 295517	B	19720110	AT 1970-2870	19700327
AT 320986	B	19750310	AT 1971-1813	19700327
BE 748296	A	19701001	BE 1970-748296	19700401
SE 385884	B	19760726	SE 1970-4497	19700401
JP 51030072	B	19760830	JP 1970-27048	19700401
CH 586242	A5	19770331	CH 1970-4805	19700401
GB 1317001	A	19730516	GB 1970-15731	19700402
CA 992536	A1	19760706	CA 1970-78970	19700402
NL 154735	B	19771017	NL 1970-4757	19700402
US 3928376	A	19751223	US 1972-230989	19720301
SE 7414667	A	19741121	SE 1974-14667	19741121
SE 411624	C	19800508		
US 4099007	A	19780704	US 1975-586035	19750611
US 4096130	A	19780620	US 1975-593010	19750703
PRIORITY APPLN. INFO.:			DE 1969-1916932	A 19690402
			DE 1969-1920845	A 19690424
			US 1970-24794	A2 19700401
			US 1972-230989	A3 19720301

GI For diagram(s), see printed CA Issue.

AB The title compds. (I), useful for thermally stable coatings on metals or ceramics and for films, were-prepared from EtO2CCONHXNHCOCO2Et (II) and OCNYNCO. Thus, 1 mole II [X] = (p-C6H4)2CH2] was reacted with 1 mole (p-OCNC6H4)2O in 250 g DMF and 400 g N-methylpyrrolidine 1 hr at room temperature under N or CO2, 10 ml Et3N and 0.3 g Co naphthenate in 50 ml DMF were added at <50°, and kept 3 hr to give a yellowish solution of 1200-1300 cP viscosity at 20°. A metal sheet was coated with the solution and heated 5 min at 375° to give a clear, elastic, adhesive coating of good solvent and chemical resistance. Among 10 I prepared were (X and Y given): p-C6H4, (p-C6H4)2CH2; p-C6H4C6H4-p, (CH2)6; (p-C6H4)2O, 2,4-C6H3Me; 3,3'-dimethyl-4,4'-biphenylene 1,5-naphthylene.

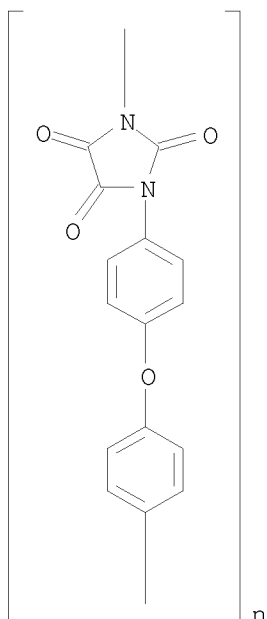
IT 31626-60-5

RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings, heat-resistant)

RN 31626-60-5 HCAPLUS

CN Poly[(2,4,5-trioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenylene]  
(9CI) (CA INDEX NAME)

10501317



L4 ANSWER 446 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:23572 HCAPLUS

DOCUMENT NUMBER: 74:23572

ORIGINAL REFERENCE NO.: 74:3821a,3824a

TITLE: Manufacturing polyamides

INVENTOR(S): Kasayuki, Takatsune; Imanaka, Hiroshi

PATENT ASSIGNEE(S): Toyo Spinning Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 3 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

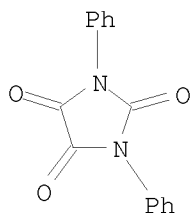
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 45029837	B4	19700928	JP	19670913
GI	For diagram(s), see printed CA Issue.				
AB	Lactams are anionically polymerized in the presence of parabanic acid derivs. and analogs (I) (as the polymerization activator), where X, Y, and Z are O, S,				
or					
	NR3, R1 and R2 are hydrocarbyl, and R3 is hydrocarbyl, acyl, or carbamoyl. Thus, 22.6 parts $\epsilon$ -caprolactam molten at 80° in a N atmospheric is mixed with 0.046 g metallic Na and 0.16 part I (X = Y = Z = O and R1 = R2 = Ph) and polymerized for 60 min at 180° to give (7 min no-flow time) polymer with 2.49 reduced viscosity and 3.73% H2O-soluble content (8 hr, 100°).				
IT	6488-59-1				
	RL: CAT (Catalyst use); USES (Uses)				
	(catalyst, polymerization of caprolactam)				
RN	6488-59-1 HCAPLUS				

Updated Search

10501317

CN Imidazolidinetriene, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 447 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:4510 HCAPLUS

DOCUMENT NUMBER: 74:4510

ORIGINAL REFERENCE NO.: 74:723a,726a

TITLE: Aromatic polyamides with heterocyclic ring systems.  
II

AUTHOR(S): Kuenzel, Hans E.; Bentz, Francis; Wolf, Gerhard  
Dieter; Blankenstein, Guenter; Nischk, Guenther

CORPORATE SOURCE: Org.-Wiss. Lab., Farbenfabriken Bayer A.-G.,  
Dormagen/Rhein, Fed. Rep. Ger.

SOURCE: Makromolekulare Chemie (1970), 138, 223-50

CODEN: MACEAK; ISSN: 0025-116X

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB The title polymers were prepared from isophthaloyl or terephthaloyl dichloride and the diamines shown, most of which were prepared by cyclizing the appropriate NO<sub>2</sub>-containing ortho-disubstituted aromatic compound and then reducing the NO<sub>2</sub> groups. I (m = n = 0, X = O, Y = CO) gave soluble polyamides of poor thermal stability and textile properties, while polyamides from I (m = 1, n = 0, X = O, Y = CO) and I (m = 0, n = 1, X = O, Y = CO) had both good textile and good thermal properties. Polymers from I (m = n = 0, X = MeN, Y = CO), II (n = 0), and II (n = 1) had good thermal stability but poor textile properties. Polyamides from I (m = n = 0, X = RN, Y = SO<sub>2</sub>) had poor thermal and textile properties. III (n = 0) or its S,S-dioxide gave insol. polymers, while III (n = 1, X = O or SO<sub>2</sub>) gave soluble polymers of moderately good thermal stability. IV (R = H) gave insol. polymers, but IV (R = Me) and iso-phthaloyl dichloride gave a soluble polymer of low thermal stability.

IT 30229-39-1

RL: USES (Uses)  
(fiber)

RN 30229-39-1 HCAPLUS

CN Terephthalic acid, polyamide with 1,3-bis(p-aminophenyl)-4-methyl-2-imidazolidinone (8CI) (CA INDEX NAME)

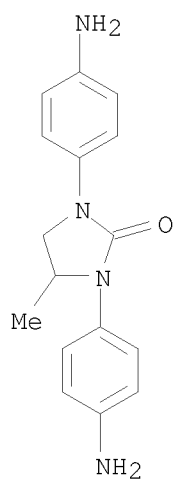
CM 1

CRN 28273-16-7

CMF C16 H18 N4 O

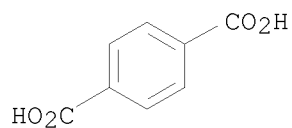
Updated Search

10501317



CM 2

CRN 100-21-0  
CMF C8 H6 O4



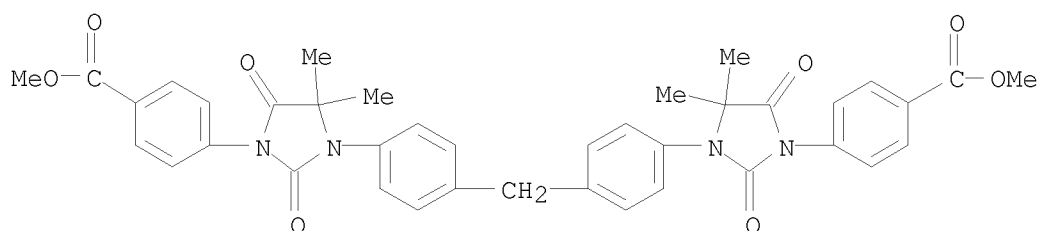
L4 ANSWER 448 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:521619 HCAPLUS  
DOCUMENT NUMBER: 73:121619  
ORIGINAL REFERENCE NO.: 73:19829a,19832a  
TITLE: Oligo- and polyhydantoins containing carboxyl groups  
INVENTOR(S): Merten, Rudolf; Wolf, Gerhard Dieter  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 22 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1906492	A	19700820	DE 1969-1906492	19690210
DE 1906492	B2	19800731		
US 3684774	A	19720815	US 1970-6581	19700128
GB 1267332	A	19720315	GB 1970-1267332	19700203
FR 2035279	A5	19701218	FR 1970-4691	19700210
PRIORITY APPLN. INFO.:			DE 1969-1906492	A 19690210

GI For diagram(s), see printed CA Issue.

Updated Search

- AB Oligo- and polyhydantoins containing CO<sub>2</sub>H groups were prepared by reaction of polyglycinates with isocyanate group-containing esters and polyisocyanates. Thus, reaction of 160 parts CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NHCMe<sub>2</sub>CO<sub>2</sub>Me-p)<sub>2</sub> in cresol containing some endoethylenepiperazine with 7.1 parts p-OCNC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>Me in toluene at 20-30°, reaction with 95 parts CH<sub>2</sub>(C<sub>6</sub>H<sub>4</sub>NCO-p)<sub>2</sub> in toluene for 15 hr, and heating 6 hr at 200° gave 835 parts 30% polyhydantoin solution in cresol. This polyhydantoin of 11,000-12,000 mol. weight and 635 cP (25°, 1:1 solution in cresol) gave elec. insulating lacquers of films of high heat resistance on heating with poly(ethylene glycol-glycerol terephthalate). Similar reaction of polyglycinates with isocyanatocarboxylates gave I (R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and X given): Me, Me, CO<sub>2</sub>Me, H, H, CH<sub>2</sub>; Me, Me, H CO<sub>2</sub>Me, CO<sub>2</sub>Me, CH<sub>2</sub>; Me, Me, CO<sub>2</sub>Et, H, H, O; Me, Me, CO<sub>2</sub>Et, H, H, S; H, H, CO<sub>2</sub>Et, H, H, O; H, H, CO<sub>2</sub>Et, H, H, CH<sub>2</sub>CH<sub>2</sub>; H, H, CO<sub>2</sub>Et, H, H, S; and II (R, R<sub>1</sub>, and X given): CH<sub>2</sub>CO<sub>2</sub>Me, 2,5-(MeO<sub>2</sub>C)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, (CH<sub>2</sub>)<sub>6</sub>; H, p-EtO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>, CH<sub>2</sub>; H, (CH<sub>2</sub>)<sub>5</sub>CO<sub>2</sub>Et, (p-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CH<sub>2</sub>; and CH<sub>2</sub>CO<sub>2</sub>Me, (CH<sub>2</sub>)<sub>5</sub>CO<sub>2</sub>Et, (CH<sub>2</sub>)<sub>6</sub>.
- IT 29750-26-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)
- RN 29750-26-3 HCAPLUS
- CN Benzoic acid, 4,4'-[methylenebis[p-phenylene(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)]]di-, dimethyl ester (8CI) (CA INDEX NAME)



L4 ANSWER 449 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:520562 HCAPLUS

DOCUMENT NUMBER: 73:120562

ORIGINAL REFERENCE NO.: 73:19643a,19646a

TITLE: Reactions of sulfur ylides with cyclic carboxyl compounds and isocyanates

AUTHOR(S): Mukaiyama, Teruaki; Higo, Moriaki; Takei, Hisashi

CORPORATE SOURCE: Lab. Org. Chem., Tokyo Inst. Technol., Tokyo, Japan

SOURCE: Bulletin of the Chemical Society of Japan (1970), 43(8), 2566-70

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

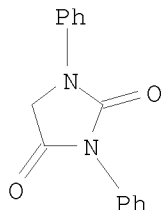
GI For diagram(s), see printed CA Issue.

AB The reactions of dimethyloxosulfoniummethylide Me<sub>2</sub>S+(O)C-H<sub>2</sub> with cyclic carboxyl compds. (I), such as lactones, carboxylic anhydrides and imides, gave the corresponding stable oxosulfonium ylides Me<sub>2</sub>S+(O)C-HCOYXH. In addition, the reaction of phenyl isocyanate dimer (II) and Me<sub>2</sub>S+C-H<sub>2</sub> afforded a 1:1 adduct ([Me<sub>2</sub>S+C-(CONHPh)<sub>2</sub>]), which, on heating, decomposed to give a ring expansion product (III). Hydantoin derivs. (IV) were also produced by treating Me<sub>2</sub>S+C-MeCOR (V) with two moles of isocyanates in Me<sub>2</sub>SO. On

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the other hand, when the same reactions were carried out in benzene, V reacted with an equimolar amount of isocyanate to give acrylamide derivs. (MeSCH<sub>2</sub>OCPh:CMcCONHR) in high yields by the rearrangement of the intermediate sulfoniummethylide (VI).

IT 3157-03-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 450 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:510343 HCAPLUS  
DOCUMENT NUMBER: 73:110343  
ORIGINAL REFERENCE NO.: 73:17975a,17978a  
TITLE: Polyhydantoins  
INVENTOR(S): Fischer, Rolf; Merten, Rudolf  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 15 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 1908678	A	19700910	DE 1969-1908678	19670221
FR 2032943	A5	19701127	FR 1970-6219	19700220
GB 1294244	A	19721025	GB 1970-1294244	19700220
US 3814776	A	19740604	US 1972-232636	19720307
PRIORITY APPLN. INFO.:			DE 1969-1908678	A 19690221
			US 1970-9075	A1 19700205

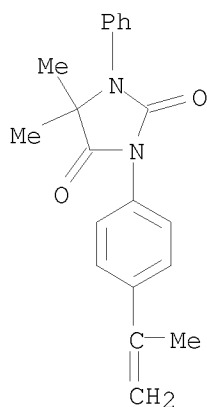
GI For diagram(s), see printed CA Issue.  
AB PhNHCH<sub>2</sub>CO<sub>2</sub>Et in C<sub>6</sub>H<sub>6</sub> and PhOH containing a small amount of hydroquinone is treated with 2-isocyanatoethyl methacrylate (I), heated to evaporate the solvent, and treated in EtOH with aqueous NaOH to prepare 3-[2-(isopropenylcarbonyloxy)ethyl]-1-phenylhydantoin (II). p-Isopropenylphenyl isocyanate (III) is added to Me anilinoisobutyrate or to PhNHCH<sub>2</sub>CO<sub>2</sub>Et in C<sub>6</sub>H<sub>6</sub> to prepare 3-(4-isopropenylphenyl)-5,5-dimethyl-1-phenylhydantoin and 3-(4-isopropenylphenyl)-1-phenylhydantoin, resp. Similarly, polyhydantoins are prepared from 4,4'-bis(2-methoxycarbonyl-2-propylamino)diphenylmethane, 4,4'-diisocyanatodiphenylmethane, and either I or III (used only to form the end groups). These hydantoins containing olefin groups are useful for the preparation of polymers having good

Updated Search



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heat resistance.  
IT 27685-72-9P  
RL: PREP (Preparation)  
(preparation of)  
RN 27685-72-9 HCAPLUS  
CN Hydantoin, 3-(p-isopropenylphenyl)-5,5-dimethyl-1-phenyl- (8CI) (CA INDEX NAME)



L4 ANSWER 451 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:488407 HCAPLUS  
DOCUMENT NUMBER: 73:88407  
ORIGINAL REFERENCE NO.: 73:14455a,14458a  
TITLE: Polyquinazolones containing hydantoin groups  
INVENTOR(S): Radlmann, Eduard; Lorenz, Guenter; Wolf, Gerhard  
Dieter; Nischk, Guenther  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 16 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1805955	A	19700716	DE 1968-1805955	19681030
PRIORITY APPLN. INFO.:			DE 1968-1805955	19681030

GI For diagram(s), see printed CA Issue.

AB Polyquinazolones containing hydration groups with excellent thermal, mech., and elec. properties were prepared and used for the manufacture of threads, fibers, films, and moldings. Thus, heating I 34.8, II (R = Me) 16.0, N-methylpyrrolidinone 203, and P205 8 parts for 20 hr at 180° gave 47.9 parts polycondensate of 1.45 relative viscosity (0.2 g/100 ml CHCl<sub>3</sub>, 25°). Similar polycondensates were obtained by reaction of I with II (R = Ph), III (R = p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>O) with II (R = Me), III (R = NH<sub>2</sub>) with II (R = Me), and IV with V.

IT 28323-12-8P  
RL: PREP (Preparation)

Updated Search

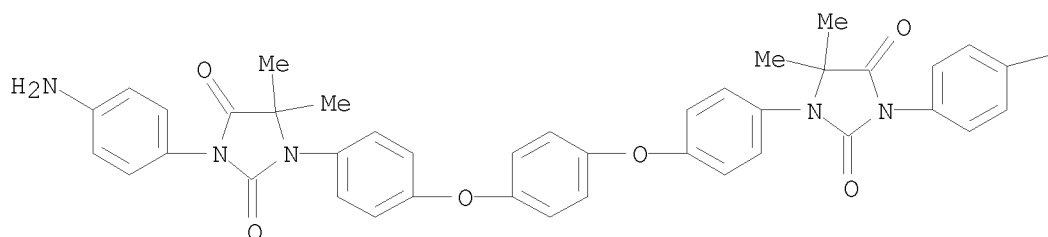
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(preparation of)  
RN 28323-12-8 HCAPLUS  
CN [6,6'-Bi-4H-3,1-benzoxazine]-4,4'-dione, 2,2'-dimethyl-, polymer with  
1,1'-[p-phenylenebis(oxy-p-phenylene)]bis[3-(p-aminophenyl)-5,5-  
dimethylhydantoin] (8CI) (CA INDEX NAME)

CM 1

CRN 24802-16-2  
CMF C40 H36 N6 O6

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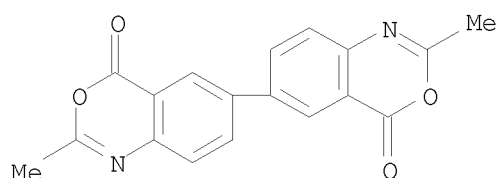


PAGE 1-B

—NH<sub>2</sub>

CM 2

CRN 2130-57-6  
CMF C18 H12 N2 O4



L4 ANSWER 452 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:457286 HCAPLUS  
DOCUMENT NUMBER: 73:57286  
TITLE: 1-(4-Hydroxyphenyl)hydantoins as starting materials  
for polymers  
INVENTOR(S): Schmidt, Wolfhard; Wolf, Gerhard D.; Giessler,  
Wolfgang; Nischk, Guenther E.; Merten, Rudolf  
PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
SOURCE: Ger. Offen., 25 pp.  
CODEN: GWXXBX

Updated Search

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DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1812002	A	19700618	DE 1968-1812002	19681130
PRIORITY APPLN. INFO.:			DE 1968-1812002	19681130

GI For diagram(s), see printed CA Issue.

AB The title compds. (I and II), useful as starting materials for polyesters, polycarbonates, polysulfonates, and insecticides, were prepared from N-hydroxyaryl  $\alpha$ -amino nitriles or esters and isocyanates. Thus, p-HOC6H4NHCM<sub>2</sub>CN and KNCO were heated 1 hr in HOAc at 100° to give .apprx.52% I (R = R<sub>1</sub> = H, R<sub>2</sub> = O). Similarly prepared were the following I (R, R<sub>1</sub>, R<sub>2</sub>, and % yield given): Me, Me, O, 76; Me, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, NH (Ia), 77.5; Me, m-HOC<sub>6</sub>H<sub>4</sub>, O, 70; Me, p-HOC<sub>6</sub>H<sub>4</sub>, O, 61; Me, p-MeO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>, O, .apprx.71; and the following II (X, R, R<sub>1</sub>, and % yield given): m-C<sub>6</sub>H<sub>4</sub>, Me, NH (IIa), -; (p-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>O, Me, O, 84; (p-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CH<sub>2</sub>, H, O, -. Saponification of

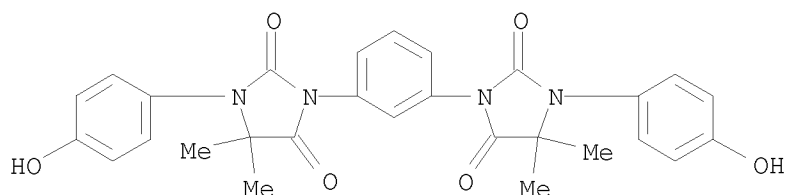
Ia or IIa gave 75% I (R = Me, R<sub>1</sub> = p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, R<sub>2</sub> = O) (Ib) or 87% II (X = m-C<sub>6</sub>H<sub>4</sub>, R = Me, R<sub>1</sub> = O), resp. Reduction of Ib over Raney Ni gave 73.5% I (R = Me, R<sub>1</sub> = p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, R<sub>2</sub> = O). Reaction of p-HOC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CO<sub>2</sub>Et with (p-OCNC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CH<sub>2</sub> in cresol for 6 hr at 160°, reaction with (PhO)<sub>2</sub>CO for 6 hr at 200°, and baking at 260° on a metal sheet gave a polyhydantoin coating containing carbonate groups.

IT 26850-27-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 26850-27-1 HCAPLUS

CN Hydantoin, 3,3'-m-phenylenebis[1-(p-hydroxyphenyl)-5,5-dimethyl- (8CI)  
 (CA INDEX NAME)



L4 ANSWER 453 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:445413 HCAPLUS

DOCUMENT NUMBER: 73:45413

ORIGINAL REFERENCE NO.: 73:7491a,7494a

TITLE: Chemistry of a cumulated double-bond compound. X.  
 Reactions of isocyanates and carbodiimide with  
 acetylenic compounds

AUTHOR(S): Ohshiro, Yoshiki; Kinugasa, Kazumasa; Minami, Toru;  
 Agawa, Toshio

CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, Japan

SOURCE: Journal of Organic Chemistry (1970), 35(7), 2136-40  
 CODEN: JOCEAH; ISSN: 0022-3263

Updated Search

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DOCUMENT TYPE: Journal  
LANGUAGE: English

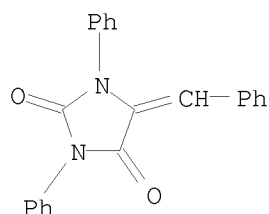
AB In the reactions of PhNCO with PhC.tplbond.CH in the presence of Fe(CO)<sub>5</sub>, 4-benzylidene-1,3-diphenylhydantoin(I) was obtained by the addition reactions and H shift. Oxidation of I gave diphenylparabanic acid. The H transfer of acetylenic H was identified with PhC.tplbond.CD. The reactions of diphenyl carbodiimide with PhC.tplbond.CH in the presence of Fe(CO)<sub>5</sub> gave 4-benzylidene-1,3-diphenyl-2,5-bis(phenylimino)-imidazolidine and 4-benzylidene-1,3-diphenyl-2-phenyliminoimidazolidin-5-one. 1,3,4-Triphenylpyrroline-2,5-dione and 1,3,4-triphenyl-5-phenyliminopyrrolin-2-one were obtained in the reactions between PhNCO, PhC.tplbond.CPh, and Fe(CO)<sub>5</sub>. In this reactions, hydantoin and imidazolidine were not obtained. Reaction mechanisms were discussed.

IT 4514-33-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 4514-33-4 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)- (CA INDEX NAME)



L4 ANSWER 454 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:435376 HCAPLUS

DOCUMENT NUMBER: 73:35376

ORIGINAL REFERENCE NO.: 73:5865a,5868a

TITLE: 3-(3,5-Dihalophenyl)-2,4-imidazolidinediones

INVENTOR(S): Fujinami, Akira; Ozaki, Toshiaki; Yamamoto, Sigeo; Horiuchi, Fukashi; Akiba, Keiichiro; Tanaka, Katsutoshi; Ooba, Shigehiro; Kameda, Nobuyuki; Ooishi, Tadashi; Nodera, Katsuji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Ger. Offen., 41 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 1958183	A	19700604	DE 1969-1958183	19691119
DE 1958183	B2	19751218		
DE 1958183	C3	19760902		
DK 123717	B	19720724	DK 1969-5998	19691112
US 3668217	A	19720606	US 1969-876987	19691114
FR 2024141	A5	19700827	FR 1969-39612	19691118

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GB 1251907	A	19711103	GB 1969-1251907	19691119
ES 373677	A1	19720516	ES 1969-373677	19691119
CS 178062	B2	19770831	CS 1969-7632	19691119
BE 742115	A	19700504	BE 1969-742115	19691124
NL 6917658	A	19700527	NL 1969-17658	19691124
SU 400094	A3	19731003	SU 1969-1379701	19691124
PL 72705	B1	19740830	PL 1969-137068	19691124
PL 78373	B1	19750630	PL 1969-142652	19691124
CH 520471	A	19720331	CH 1969-520471	19691125
PRIORITY APPLN. INFO.:			JP 1968-86483	A 19681125
			JP 1969-37160	A 19690513

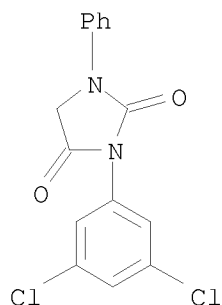
GI For diagram(s), see printed CA Issue.

AB The fungicidal title compds. (I) were prepared by refluxing 3,5-R3R4C6H3NHCONRCR1R2R5 (R5 = CO2H, CO2Et, CN) in the presence of 20% HCl. Among about 15 compds. prepared in 70-95% yield were the following I (R2 = H, R3 = R4 = Cl) (R and R1 given): H, H (Ia); H, Me; Me, H; Et, H; Pr, H; H, iso-Bu. Rice plants, grown until the 4 leaf phase, were sprayed with dust containing 3.0% Ia and infected with Cochliobolus miyabeanus. After 3 days the plants showed 3 spots/leaf in contrast to 81 spots/leaf in untreated plants.

IT 27387-95-7  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(fungicidal activity of)

RN 27387-95-7 HCAPLUS

CN 2,4-Imidazolidinedione, 3-(3,5-dichlorophenyl)-1-phenyl- (CA INDEX NAME)



L4 ANSWER 455 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:112184 HCAPLUS

DOCUMENT NUMBER: 72:112184

ORIGINAL REFERENCE NO.: 72:20281a,20284a

TITLE: Preparation and reactions of substituted 2-imino-1,3-oxazolidines: their use in retarding hydrolytic degradation of polyurethanes

AUTHOR(S): Metzger, Sidney H., Jr.; Cross, James M.

CORPORATE SOURCE: Mobay Chem. Co., Pittsburgh, PA, USA

SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1968), 9(2), 1572-9  
CODEN: ACPPAY; ISSN: 0032-3934

DOCUMENT TYPE: Journal

LANGUAGE: English

Updated Search

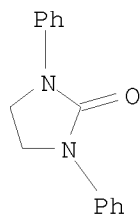
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AB Substituted 2-imino-1,3-oxazolidines were prepared by reacting ethylene oxide (I) with carbodiimides in the presence of Et<sub>4</sub>NBr. Also produced by this reaction by the known rearrangement of the iminooxazolidines were the corresponding N,N'-disubstituted imidazolidinones. Using Et<sub>3</sub>N catalyst, only the substituted 2-imino-1,3-oxazolidine was produced when I was reacted with either diphenylcarbodiimide or the guanidine formed from the reaction of the carbodiimide with a secondary aliphatic amine. 2-(Phenylimino)-3-phenyloxazolidine underwent exchange reactions with isocyanates similar to the known exchange reactions between carbodiimides and isocyanates, but the intermediate four-membered cyclic compds. could not be detected. Reactions of the substituted 2-imino-1,3-oxazolidines with I and aniline were observed, and appeared to involve initial addition to the imine double bond, followed by expulsion of 1-phenylaziridine. The substituted 2-imino-1,3-oxazolidines were anti-hydrolytic additives in polyester-based polyurethane elastomers and retarded hydrolytic degradation of both printing roll formulations (Shore A hardness .apprx.20) and Texin 480 A (Shore A hardness .apprx.80).

IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 456 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:111364 HCAPLUS

DOCUMENT NUMBER: 72:111364

ORIGINAL REFERENCE NO.: 72:20111a,20114a

TITLE: Syntheses of thiohydantoin related compounds. XVII.  
Synthesis of 1,3-diphenyl-5-butylhydantoin

AUTHOR(S): Shirai, Hideaki; Yashiro, Tamotsu; Miwa, Ichitomo

CORPORATE SOURCE: Fac. Pharm. Sci., Nagoya City Univ., Nagoya, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1969), 17(12),  
2436-41  
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

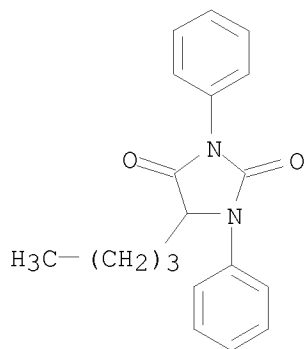
GI For diagram(s), see printed CA Issue.

AB 1,3-Diphenyl-5-butylhydantoin (I) was prepared by 2 methods. Treatment of 1,3-diphenyl-2-thio-hydantoin (II) with PrCHO gave both geometrical isomers of 1,3-diphenyl-5-butylidene-2-thiohydantoin (III, X = S) as two kinds of crystals. The configurations of III were determined from their NMR spectra. Two dimers of III, IV, produced as by-products, were geometrical isomers. I was obtained in 40% yield by refluxing 2-anilino-hexanoic acid (Bu(PhNH)CHCO<sub>2</sub>H) and PhNCO in xylene. III (X = S) was converted to III (X

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= O) with ClCH<sub>2</sub>CO<sub>2</sub>H. Reduction of this with HI-P gave I.  
IT 26558-83-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 26558-83-8 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-butyl-1,3-diphenyl- (CA INDEX NAME)

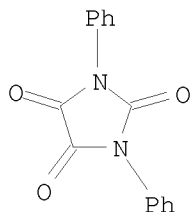


L4 ANSWER 457 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:100629 HCAPLUS  
DOCUMENT NUMBER: 72:100629  
ORIGINAL REFERENCE NO.: 72:18249a,18252a  
TITLE: Addition of bifunctional acyl chlorides to carbodiimides and some subsequent reactions [imidazolidines and pyrimidines]  
AUTHOR(S): Zinner, Gerwalt; Vollrath, Ruediger  
CORPORATE SOURCE: Inst. Pharm. Chem., Tech. Univ. Braunschweig, Brunswick, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1970), 103(3), 766-76  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 72:100629  
GI For diagram(s), see printed CA Issue.  
AB Addition of ClCOCOC1 to 1,3-di(R-substituted)carbodiimides gave 66-79% 1,3-di(R-substituted)-2,2-dichloroimidazolidine-4,5-diones (I) (where R = Et, iso-Pr, tert-Bu, Ph, cyclohexyl, or p-MeC<sub>6</sub>H<sub>4</sub>). Reaction of I with dihydric alcs., mercapto alcs., dimercaptans, diamines, or pyrocatechol gave 14-90% of the spiro compds., substituted 4,5-imidazolidinediones (II) [where (R<sub>1</sub>R<sub>2</sub> =) O(CH<sub>2</sub>)<sub>2</sub>O, O(CH<sub>2</sub>)<sub>2</sub>S, S(CH<sub>2</sub>)<sub>2</sub>S, MeN(CH<sub>2</sub>)<sub>2</sub>NMe, o-OC<sub>6</sub>H<sub>4</sub>O, o-NHC<sub>6</sub>H<sub>4</sub>NH, O(CH<sub>2</sub>)<sub>3</sub>O, S(CH<sub>2</sub>)<sub>3</sub>S, or OCH<sub>2</sub>CEt<sub>2</sub>CH<sub>2</sub>O]. Reaction of I with primary amines, hydroxylamines, or hydrazines yielded 17-91% substituted imidazolidine-4,5-diones (III) (where R = iso-Pr, cyclohexyl, or p-MeC<sub>6</sub>H<sub>4</sub>; and R<sub>1</sub> = OH, OMe, OCH<sub>2</sub>Ph, Ph, Ph, NMe<sub>2</sub>, piperidino, NHCO<sub>2</sub>Et, or CN). R<sub>1</sub>R<sub>2</sub>C(COCl)<sub>2</sub> reacted similarly with carbodiimides to give substituted 2,2-di-chlorohexahydropyrimidine-4,6-diones (IV) [where R = iso-Pr or cyclohexyl; and R<sub>1</sub> = R<sub>2</sub> = Me, or (R<sub>1</sub>R<sub>2</sub> =) (CH<sub>2</sub>)<sub>3</sub>]. From IV, the spiro compds., substituted 5,5-dimethylhexahydro-pyrimidine-4,6-diones (V) [where R = iso-Pr or cyclohexyl; and (R<sub>3</sub>R<sub>4</sub> =) S(CH<sub>2</sub>)<sub>2</sub>S, NPh, or NNMe<sub>2</sub>], were obtained. Succinyl or phthaloyl chloride reacted with 1,3-dicyclohexyl-carbodiimide to give the open chain compds., succin-

Updated Search

10501317

or-phthalbis-(N.N'-dicyclohexylureide), resp.  
IT 6488-59-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 458 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:68047 HCAPLUS  
DOCUMENT NUMBER: 72:68047  
ORIGINAL REFERENCE NO.: 72:12445a,12448a  
TITLE: Aromatic polyamides with heterocyclic ring systems  
AUTHOR(S): Kuenzel, H. E.; Wolf, G. D.; Bentz, F.; Blankenstein, G.; Nischk, Guenther E.  
CORPORATE SOURCE: Org.-Wiss. Lab., Farbenfabriken Bayer A.-G., Dormagen/Rh., Fed. Rep. Ger.  
SOURCE: Makromolekulare Chemie (1969), 130, 103-44  
CODEN: MACEAK; ISSN: 0025-116X  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI For diagram(s), see printed CA Issue.  
AB Aromatic diamines containing oxadiazole, triazole, thiadiazole, thiazole, hydantoin, quinazolone, and quinazolinodione ring systems were prepared and combined with aromatic dicarboxylic acid dichlorides to give the title polymers. The 1,3,4-oxadiazole derivs. were prepared by cyclizing nitro-substituted 1,2-diacylhydrazines and reducing the NO2 groups (compound and m.p. given): 2,5 - bis[4 - aminophenoxy)phenyl] - 1,3,4 - oxadiazole (I), 227-9°; 2 - (4 - aminophenyl) - 5 - [4 - (4 - aminophenoxy)phenyl]-1,3,4-oxadiazole, 228-30°; 1,3 - bis[5 - [3 - (4 - aminophenoxy)phenyl] - 1,3,4 - oxadiazol - 2 - yl]benzene, 222-5°; 2,5-bis[3-(4-aminophenoxy)phenyl]-1,3,4-oxadiazole, 221-3°; 2,5-bis[4 - (4 - amino - 2 - chlorophenoxy)phenyl] - 1,3,4 - oxadiazole, 184°; 2,5-bis[4-(4-aminophenoxy) - 3-chlorophenyl]-1,3,4-oxadiazole, 156-8°; 2,5-bis[4-(4 - amino-2-chlorophenoxy) - 3-chlorophenyl] - 1,3,4 - oxadiazole, 179-82°; 2-(4 - aminophenyl)-5 - [3-(4 - aminophenoxy)phenyl] - 1,3,4 - oxadiazole, 254-6°; 2-(3-aminophenyl)-5-[3 - (4-aminophenylsulfonyl)phenyl] - 1,3,4-oxadiazole, 230-5°; 2-(4-aminophenyl)- 5 -[3-(4-aminophenylsulfonyl)phenyl]-1,3,4-oxadiazole, 240-3°. The triazole derivs. were prepared by treating nitro-substituted hydrazides with benzimidoyl chlorides and then reducing (compound and m.p. given): 3-[ 3-(4-aminophenoxy)phenyl]-5-(3-aminophenyl)-4-phenyl - 1,2,4-triazole, 266-8°; 3-[4-(4 - aminophenoxy)phenyl]-5-(4 - aminophenyl)-4 - phenyl-1,2,4-triazole,

Updated Search



268-70°; 3 - [4 - (4 - aminophenoxy)phenyl] - 5-(3-aminophenyl) - 4 - phenyl-1,2,4-triazole, 250-2°; 3,5-bis-[4 - (4-aminophenoxy)phenyl]- 4 - phenyl-1,2,4-triazole, 243-5°; 3,5-bis[3-(4-aminophenoxy)phenyl]- 4 - phenyl - 1,2,4 - triazole, 272-4°; 3-[3-(4-aminophenylsulfonyl)phenyl]-5-(3-aminophenyl)-1,2,4 - triazole, 138-42°. 1,3,4 - Thiadiazoles were prepared by cyclodehydrating nitro-substituted diacylhydrazines in the presence of P2S5, while the thiazoles were prepd . from thioamides and bromomethyl ketones (compound and m.p. given): 2,5 - bis[4-(4-aminophenoxy)phenyl] - 1,3,4 - thiadiazole, 194-7°; 2,5 - bis[3 - (4 - aminophenoxy)phenyl]- 1,3,4-thiadiazole, 155-7°; 2 - [4-(4-aminophenoxy)phenyl] - 5 - (3-aminophenyl) - 1,3,4 - thiadiazole, 163-5°; 2 - [3 - (4 - aminophenoxy)phenyl] - 4 - (4 - aminophenyl)thiazole, 153-5°; 2 - [4-(4-aminophenoxy)phenyl] - 4 - (4-aminophenyl)thiazole, 170-2°; 2 - [4 - (4 - aminophenoxy)phenyl] - 4 - (3 - aminophenyl)thiazole, 127-32°; 2-[4-(4-amino-2-chlorophenoxy)phenyl]-4 - (3 - aminophenyl)thiazole, 129-30°. The substituted 5,5-dimethylhydantoin s were prepared by treating nitro-substituted  $\alpha$ -aminoisobutyronitriles with nitro-substituted isocyanates, cyclodehydrating, and reducing (compound and m.p. given): 1,3 - bis-(4-aminophenyl)-5,5-dimethylhydantoin, 279-80°; 1 - [4-(4-aminophenoxy)phenyl] - 3 - (4-aminophenyl) - 5,5 - dimethylhydantoin, 258-9°; 1,3-bis[4-(4-aminophenoxy)phenyl]-5,5-dimethylhydantoin, 188-95°; 1,4 - bis[1-[4-(4-aminophenoxy)phenyl]-5,5 - dimethylhydantoin - 3 - yl]phenoxy]benzene, 150-4°; 4,4'-bis[4 - [1-[4-(4-aminophenoxy)phenyl] - 5,5 - dimethylhydantoin-3 - yl]phenoxy]diphenyl sulfone, 173-81°; 1,4-bis[4-[3-[4-(4-aminophenoxy)phenyl] - 5,5-dimethylhydantoin - 1-yl]phenoxy]benzene, 300-3°; 1,4 - bis[4 - [3 - (4 - aminophenyl) - 5,5 - dimethylhydantoin - 1 - yl]phenoxy]benzene, 258-62°. Quinazolin ed i ones were prepared similarly to the hydantoin s by cyclodehydrating the reaction products of isocyanates and anthranilic acids, and then reducing the NO2 groups (compound and m.p. given): 3-(4-aminophenyl)-7-amino - 2,4(1H,3H) - quinazolin ed i one (II), >360°, 3-(4-aminophenyl)-6-amino - 2,4(1H,3H)-quinazolin ed i one, 340-5° (decompose); 3 - [4 - (4-aminophenoxy)phenyl] - 7 - amino-2,4(1H,3H)-quinazolin ed i one, 293-4°; 3,3'-m-phenylenebis[7-amino-2,4(1H,3H)-quinazolin ed i one], 322-9°; 1,4 - bis[4-(7-amino-2,4(1H,3H) - dioxoquinazolin - 3 - yl)phenoxy]benzene, >360°; 4,4'-bis[4 - (7-amino - 2,4(1H,3H)-dioxoquinazolin-3-yl)phenoxy]diphenyl sulfone, 262-5°. 4(3H) - Quinazolones were prepared by forming 3,1-benzoxazine-4-ones from anthranilic acids and Ac2O, treating with an aromatic nitro amine to give a quinazolone, and reducing the NO2 groups (compound and m.p. given): 3-(4-aminophenyl)-7-amino - 4(3H)-quinazolone, 285-8°; 3-[4-(4-aminophenoxy)phenyl] - 7 - amino-4(3H)-quinazolone, 245-6°; 3 - [4 - (4-amino - 2 - chlorophenoxy)phenyl] - 7 - amino - 4(3H) - quinazolone, 280-3°; 3 - [3-(4-aminophenoxy)phenyl]-7-amino-2-methyl-4(3H)-quinazolone, 223-4°; 3 - (3 - aminophenyl)-6-amino-2-methyl-4(3H) - quinazolone, 237-8°; 1,4 - bis[4 - (7-amino-2-methyl-4(3H)-oxoquinazolin-3-yl)phenoxy]benzene, >360°; 4,4'-bis[4-(7-amino-2-methyl-4(3H)-oxoquinazolin - 3-yl)phenoxy]-diphenyl sulfone, 313-20° 2 - [3 - (4 - aminophenoxy)phenyl]-7 - amino - 3 - phenyl - 4(3H) - quinazolone, 253-6°; 2-[4-(4-aminophenoxy)phenyl]-6-amino - 3-phenyl-4(3H)-quinazolone, 279-81°; 2 - [3-(4 - aminophenoxy)phenyl] - 6 - amino-3-phenyl - 4(3H)-quinazolone, 251-4°; 2 - [3 - (4 - aminophenoxy)phenyl] - 6-amino - 3 - ethyl -

4(3H) - quinazolone, 200-1°; 2-[3-(4-aminophenoxy)phenyl] - 6-amino-3 - methyl-4(3H)-quinazolone, 176-9°; 2-[4-(4-aminophenoxy)phenyl] - 6 - amino-3-methyl - 4(3H) - quinazolone, 214-15°; 2-[4 - (4 - aminophenoxy)phenyl]-7-amino-3-ethyl-4(3H)-quinazolone, 200-4°; 2 - [4 - (4 - aminophenoxy)phenyl] - 6 - amino-3-ethyl - 4(3H) - quinazolone, 212-14°; 2 - [4 - (4 - aminophenoxy)phenyl] - 7 - amino - 3 - methyl - 4(3H) - quinazolone, 216-17°; 2 - [4 - (4 - aminophenoxy)phenyl] - 6 - amino - 2 - (3-chlorophenyl) - 4(3H) - quinazolone, 258-9°; 2 - [4 - (4 - aminophenoxy)phenyl] - 7 - amino - 3 - (4 - chlorophenyl) - 4(3H) - quinazolone, 245-50°; 2 - [3-(4 - aminophenoxy)phenyl] - 7-amino-3-(4 - chlorophenyl) - 4(3H) - quinazolone, 210-14°; 2-[3-(4 - aminophenoxy)phenyl] - 6 - amino - 3 - (3-chlorophenyl)-4(3H) - quinazolone, 228-32°. These diamines were treated with isophthaloyl or terephthaloyl chlorides in AcNMe<sub>2</sub> or N-methylpyrrolidone to give the title polyamides. Products soluble in the reaction solvents were obtained from oxadiazole, triazole, thiazole, or thiadiazole derivs. containing ≥1 ether or sulfone group, and optionally a halophenyl nucleus. Hydantoin, quinazolidinedione, and quinazolone derivs. gave soluble products. Soluble polyamides containing oxadiazole rings and ≥1 ether group had good thermal stability and gave fibers having good tensile strength at room temperature, but were severely weakened at >200° and were easily flammable. The ether and triazole-, thiadiazole-, or thiazole-containing polyamides had much poorer thermal stability and low light resistance. Polymers containing quinazolone rings and ether groups had thermal stabilities comparable to that of oxadiazole-containing polymers. The quinazolidinedione polymers had the best properties. The product from II and isophthaloyl chloride had especially outstanding thermal stability and

light

resistance, good solubility, and good tensile strength which decreased only slightly with increasing temperature

IT

24689-97-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

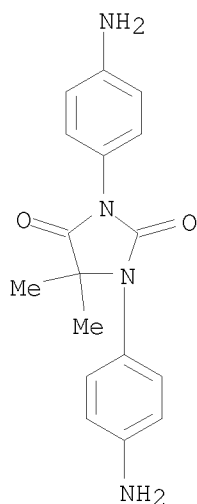
RN

24689-97-2 HCAPLUS

CN

2,4-Imidazolidinedione, 1,3-bis(4-aminophenyl)-5,5-dimethyl- (CA INDEX NAME)

10501317



L4 ANSWER 459 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1970:56103 HCAPLUS  
 DOCUMENT NUMBER: 72:56103  
 ORIGINAL REFERENCE NO.: 72:10297a,10300a  
 TITLE: Aromatic polyamides of high molecular weight  
 PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.  
 SOURCE: Fr., 12 pp.  
 CODEN: FRXXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1574410		19690711	FR	19680712
DE 1720687			DE	
DE 1720733			DE	
GB 1223457			GB	
PRIORITY APPLN. INFO.:			DE	19670713
			DE	19671020

AB Heat-stable and soluble aromatic polyamides with high mol. wts. are prepared by treating aromatic dicarboxylic acid halides with aromatic diamines containing hydantoin groups. Thus, to a solution of 70 parts 1,3-bis(p-aminophenyl)-5,5-dimethylhydantoin (I) in 480 parts absolute N-methylpyrrolidone, 50.9 parts isophthaloyl chloride was added gradually at 0-5°, the mixture stirred 5 hr at ambient temperature, and H2O added to precipitate a polyamide with a softening point >355°. I, m. 279-80°, was prepared by treating  $\alpha$ -anilinoisobutyronitrile with 4-nitrophenyl isocyanate, followed by cyclizing to 1-phenyl-3-(p-nitrophenyl)-5,5-dimethylhydantoin, m. 214-15°, nitrating to 1,3-bis(p-nitrophenyl)-5,5-dimethylhydantoin, m. 228-30°, and hydrogenating catalytically. Some other diamines used were 1,3-bis[4-(4-amino-2-chlorophenoxy)phenyl]-5,5-dimethylhydantoin and 1,3-bis[3-(p-aminophenoxy)phenyl]-5,5-dimethyl-

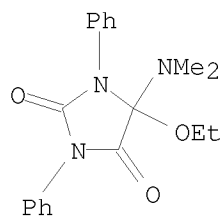
Updated Search

10501317

hydantoin.  
IT 25734-75-2P  
RL: PREP (Preparation)  
(preparation of)  
RN 25734-75-2 HCAPLUS  
CN Poly[(5,5-dimethyl-2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenyleneoxy-1,4-phenylene(4,4-dimethyl-2,5-dioxo-1,3-imidazolidinediyl)-1,4-phenyleneoxy-1,4-phenyleneiminocarbonyl-1,3-phenylenecarbonylimino-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L4 ANSWER 460 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:55337 HCAPLUS  
DOCUMENT NUMBER: 72:55337  
ORIGINAL REFERENCE NO.: 72:10129a,10132a  
TITLE: Ortho amides. XI. Reactions of dimethylformamide dialkyl acetals with isocyanates  
AUTHOR(S): Brederick, Hellmut; Simchen, Gerhard; Goeknel, Ergun  
CORPORATE SOURCE: Inst. Org. Chem., Univ. Stuttgart, Stuttgart, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1970), 103(1), 236-44  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 72:55337  
GI For diagram(s), see printed CA Issue.  
AB Reaction of (EtO)2CHNMe2 with RNCO gave 50-99% 5-alkoxy-5-dimethylaminoimidazoline-2,4-diones (I) and RNHCO2Et (where R = tert-Bu, iso-Pr, cyclohexyl, Ph, p-ClC6H4, p-EtOC6H4, p-MeC6H4, PhCH2CH2, 2-naphthyl, 2,6-Me2C6H3, or p-O2NC6H4). A mechanism involving an ylide as an intermediate is proposed.  
IT 2154-42-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 2154-42-9 HCAPLUS  
CN Hydantoin, 5-(dimethylamino)-5-ethoxy-1,3-diphenyl- (7CI, 8CI) (CA INDEX NAME)



L4 ANSWER 461 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1970:54073 HCAPLUS  
DOCUMENT NUMBER: 72:54073  
ORIGINAL REFERENCE NO.: 72:9875a,9878a  
TITLE: Controlling fungi with 1,3-diaryl-5-iminohydantoins

Updated Search

10501317

INVENTOR(S): Smith, Herbert Q.; Miller, Harold J.  
PATENT ASSIGNEE(S): Pennwalt Corp.  
SOURCE: U.S., 2 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3484525	A	19691216	US 1967-671115	19670927
PRIORITY APPLN. INFO.:			US 1967-671115	A 19670927

GI For diagram(s), see printed CA Issue.

AB The title compds. (I), where R is aryl, haloaryl, nitroaryl, or lower alkyl-substituted aryl, prepared according to J. Patton (1967), may be used as aqueous dispersions or emulsions at 0.25-3 lb active agent/acre of plants or 0.25-8 lb/gal of spray for trees in treating seeds, plants, or fruits to prevent or control attack by fungi. Thus, an aqueous dispersion made from a concentrate of 1,3-bis(4-chlorophenyl)-5-iminohydantoin 10 in xylene 45,

Me2SO 20, tetramethylurea 20, and, as surfactant, Triton X 155 (5%) gave 100% control of bean powdery mildew on pinto bean plants when applied as a 0.5% dispersion.

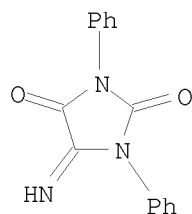
IT 10319-52-5

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(fungicides)

RN 10319-52-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-imino-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 462 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:43561 HCAPLUS

DOCUMENT NUMBER: 72:43561

ORIGINAL REFERENCE NO.: 72:7999a,8002a

TITLE: Chemistry of nucleophilic carbenes. XVII. Anomalous  $\alpha$ -elimination. Aldehydes from 1,3-diphenyl-2-alkoxyimidazolidines and Grignard compounds

AUTHOR(S): Lachmann, Burkhard; Wanzlick, Hans W.

CORPORATE SOURCE: Org.-Chem. Inst., Tech. Univ., Berlin, Fed. Rep. Ger.

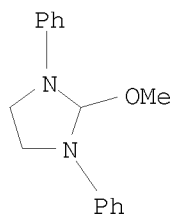
SOURCE: Justus Liebigs Annalen der Chemie (1969), 729, 27-32

CODEN: JLACBF; ISSN: 0075-4617

Updated Search

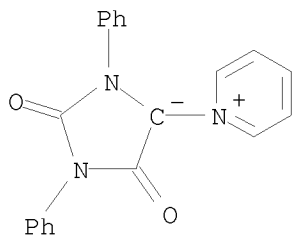
10501317

DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 72:43561  
AB 1,3-Diphenyl-2-alkoxyimidazolidines easily lost alcs. (anomalous  $\alpha$ -elimination) to give 2-(1,3-diphenylimidazolidin-2-ylidene)-1,3-diphenylimidazolidine. The reaction of 1,3-diphenyl-2-alkoxyimidazolidines with Grignard compds. gave 2-substituted 1,3-diphenylimidazolidines, which could be hydrolyzed to aldehydes.  
IT 25220-17-1P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 25220-17-1 HCAPLUS  
CN Imidazolidine, 2-methoxy-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 463 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1969:512876 HCAPLUS  
DOCUMENT NUMBER: 71:112876  
ORIGINAL REFERENCE NO.: 71:21007a,21010a  
TITLE: Reactions with betaine. IV. Reaction of betaines and phenyl isocyanate  
AUTHOR(S): Wittmann, Helga; Beutel, P.; Ziegler, Erich  
CORPORATE SOURCE: Univ. Graz, Graz, Austria  
SOURCE: Monatsh. Chem. (1969), 100(4), 1362-7  
CODEN: MOCHAP  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 71:112876  
GI For diagram(s), see printed CA Issue.  
AB (1-Pyridinium)acetate reacts with Ph-NCO, under the loss of CO<sub>2</sub> and H, to yield 2-oxo-1,3-diphenyl-4-(1-pyridinium)-2,3-dihydroimidazol-5-olate (I). The reaction of thetin with PhNCO gives 2,4-dioxo-1,3-diphenyl-5-(dimethylsulfonium)-1,2,3,4,-tetrahydropyrimidin-6-olate (II).  
IT 24009-87-8P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 24009-87-8 HCAPLUS  
CN Pyridinium, 2,5-dioxo-1,3-diphenyl-4-imidazolidinylide (8CI) (CA INDEX NAME)

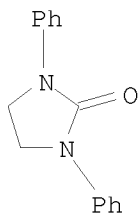
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L4 ANSWER 464 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1969:501855 HCAPLUS  
DOCUMENT NUMBER: 71:101855  
ORIGINAL REFERENCE NO.: 71:18981a,18984a  
TITLE: Oxazolidines and imidazolidinones  
INVENTOR(S): Ohashi, Takashi; Mitsunobu, Takehiro; Mukaiyama, Mitsuaki; Kubota, Naotake  
PATENT ASSIGNEE(S): Bridgestone Tire Co., Ltd.  
SOURCE: Jpn. Tokkyo Koho, 6 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 44021095	B4	19690909	JP	19641203

GI For diagram(s), see printed CA Issue.  
AB Manufacture of I and II is described. In an example, a solution of 2.38 g. PhNCO in 10 ml. PhMe is added to a mixture of 3.8 g. PhP(OCH<sub>2</sub>CH<sub>2</sub>NHPh)<sub>2</sub> in 10 ml. PhMe and the mixture refluxed 3 hrs. to give 58-5% I (R = Ph), m. 115-16° (99.5% EtOH). Similarly prepared are the following I (R, m.p., and % yield given): p-tolyl, 142-4°, 69.5; p-methoxyphenyl, 108-9°, 57.4; p-chlorophenyl, 146-8°, 46.3. Also prepared are the following II (R, m.p., and % yield given): Ph, 216-18°, 35.9; p-tolyl, 191-3°, 50.8; p-chlorophenyl, 200-2°, 11.2.  
IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



Updated Search

10501317

L4 ANSWER 465 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:87669 HCAPLUS

DOCUMENT NUMBER: 70:87669

ORIGINAL REFERENCE NO.: 70:16381a,16384a

TITLE: Syntheses of 5-acylhydantoin and of  
5-acyl-4-hydroxyoxazoles. Precursors of  
 $\beta$ -oxo- $\alpha$ -amino acids and of  
 $\beta$ -oxo- $\alpha$ -hydroxy acid amides

AUTHOR(S): Ramirez, Fausto; Bhatia, S. B.; Telefus, C. D.; Smith,  
Curtis P.

CORPORATE SOURCE: State Univ. of New York, Stony Brook, NY, USA

SOURCE: Tetrahedron (1969), 25(4), 771-82

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 70:87669

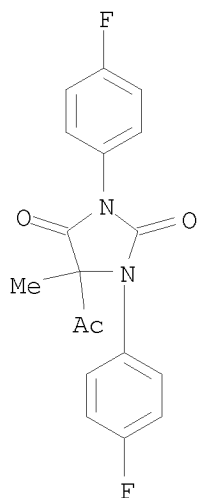
AB 2,2,2 - Trimethoxy - 4,5 - dimethyl - 2,2 - dihydro - 1,3,2 -  
dioxaphospholene, prepared from biacetyl and P(OMe)<sub>3</sub>, reacted with one mole  
equivalent of p-substituted -phenyl isocyanate to give 2,2,2-trimethoxy-4-[(p-  
substituted) phenylimino]-5-acetyl-5-methyl-2,2-dihydro-1,3,2-  
dioxaphospholanes. These reacted with another mole of isocyanate to give  
1,3-diaryl-5-acetyl-5-methylhydantoins, precursors of  $\beta$ -oxo- $\alpha$ -  
amino acids. The phenylglyoxal-P(OMe)<sub>3</sub> adduct (I) gave a tautomeric form  
of the 5-benzoylhydantoin. I reacted with 1 mole equivalent of aroyl and acyl  
isocyanates to yield 2-aryl- or 2-alkyl-5-benzoyl-4-hydroxyoxazoles, the  
tautomers of 4-oxazolones and the precursors of  $\beta$ -oxo- $\alpha$ -hydroxy  
acid amides. The 4-methoxyoxazoles were prepared from the 4-hydroxyoxazoles  
and CH<sub>2</sub>N<sub>2</sub>.

IT 21631-62-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 21631-62-9 HCAPLUS

CN Hydantoin, 5-acetyl-1,3-bis(p-fluorophenyl)-5-methyl- (8CI) (CA INDEX  
NAME)

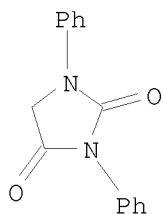


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L4 ANSWER 466 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1969:47529 HCAPLUS  
DOCUMENT NUMBER: 70:47529  
ORIGINAL REFERENCE NO.: 70:8939a,8942a  
TITLE: Optically active silicon in 2-siloxazolidones-5. An asymmetric synthesis  
AUTHOR(S): Klebe, Johann F.; Finkbeiner, Herman  
CORPORATE SOURCE: Gen. Elec. Res. and Develop. Center, Schenectady, NY, USA  
SOURCE: Journal of the American Chemical Society (1968), 90(26), 7255-61  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 70:47529  
AB A general synthesis of the new 2-siloxazolid-5-one ring system was found in the reaction of N-substituted amino acids with diamidosilanes. N-Phenylalanine, -valine, - $\beta$ -phenylalanine, and -phenylglycine were allowed to react with bis(N-methylacetamido)methylphenylsilane to give nearly quant. yields of diastereomeric pairs of siloxazolidones. The individual diastereomers were formed in unequal amts. as detected by N.M.R.; crystallization was accompanied by a rearrangement of the less abundant into the predominant diastereomer, resulting in optical activity associated with Si in those cases where the amino acid was optically active. Cleavage reactions of siloxazolidones with 2 different hydroxylic reagents in successive steps yielded the original amino acid and new silane derivs. in which Si was retained in optically active form. Silanes of opposite configuration were obtained by identical cleavage reactions of siloxazolidones derived from (R)-(+)-N-phenylalanine and R-(+)-N-phenylvaline, resp.  
IT 3157-03-7P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)

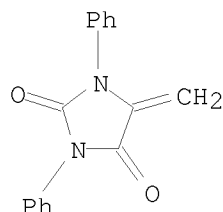


L4 ANSWER 467 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1969:11781 HCAPLUS  
DOCUMENT NUMBER: 70:11781  
ORIGINAL REFERENCE NO.: 70:2215a  
TITLE: Organotin compounds. XX. Synthesis with stannylated alkynes  
AUTHOR(S): Neumann, Wilhelm P.; Kleiner, Frank G.

Updated Search

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CORPORATE SOURCE: Univ. Giessen, Giessen, Fed. Rep. Ger.  
SOURCE: Justus Liebig's Annalen der Chemie (1968), 716, 29-36  
CODEN: JLACBF; ISSN: 0075-4617  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
AB RC.tplbond.CSnEt3 (where R = H or Ph) react with PhNCO to give  
1,3-diphenyl-5-( $\alpha$ -R1:-substituted)-hydantoins (I) (where r1: =  
Et3SnCPh: or Et3SnCH:) which on treatment with HCl-MeOH gave I (R1: = :CH2  
or :CHPh). RC.tplbond.CSnPh3 underwent Diels-Alder reaction with  
diphenyltetrazine to give 3,6-diphenyl-4-(R-substituted)-5-triphenyl-s  
tannylpyridazines, which were hydrolyzed to 3,6-diphenyl-4-(R-  
substituted)pyridazines. Treatment of R1C.tplbond.CSnR3 with iodine gave  
R1C.tplbond.CI.  
IT 21249-44-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 21249-44-5 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-methylene-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 468 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1969:3515 HCAPLUS  
DOCUMENT NUMBER: 70:3515  
ORIGINAL REFERENCE NO.: 70:629a,632a  
TITLE: Diphenylureas, diphenylthioureas, and  
diphenylguanidines  
PATENT ASSIGNEE(S): CIBA Ltd.  
SOURCE: Fr., 11 pp.  
CODEN: FRXXAK  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 1504097		19671201	FR 1966-83919	19661117
CH 474486			CH	
CH 479560			CH	
DE 1568349			DE	
FR 6139			FR	
FR 6153			FR	
GB 1142066			GB	
US 3560557		19710202	US	19670711
US 3560566		19710202	US	19661115

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PRIORITY APPLN. INFO.:

CH  
CH

19651119  
19660929

OTHER SOURCE(S): MARPAT 70:3515

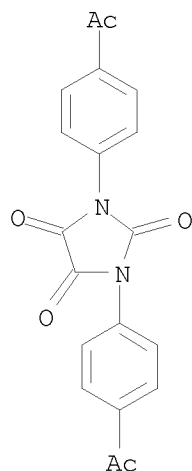
GI For diagram(s), see printed CA Issue.

AB I and II [R = H<sub>2</sub>NC(:NH)N:CMe throughout the abstract, X = O, S, or NH] are tumor inhibitors and antitrypanosomal agents especially against Trypanosoma gambiense and T. congolense. Thus, to NaOEt from 2.5 g. Na in 100 ml. alc. was added 31.24 g. 4,4'-diacetyldiphenylthiourea in 200 ml. alc., the solution was warmed 1 hr. at 90°, cooled to 25°, and 14.9 g. MeI in 50 ml. alc. was added dropwise. After stirring 5 hrs. at 95°, the solution was filtered, and NH<sub>3</sub> was passed through the filtrate 1 hr. at 0°, 1 hr. at room temperature, and 2 hrs. at 80° to yield 1,3-bis(4-acetylphenyl)guanidine (III), m. 203-7°. To 17.55 g. aminoguanidine-H<sub>2</sub>CO<sub>3</sub> (IV) in 30 ml. H<sub>2</sub>O was added 27.8 ml. 6.15N HCl. To the solution was added 13.18 g. III and 90 ml. HCONMe<sub>2</sub>, the solution stirred 10 hrs. at 80°, filtered, and concentrated to yield I (X = NH), 3HCl salt m. >310°. Similarly, reaction of IV, 6.17N HCl, and 4,4'-diacetyldiphenylurea (V) in HCONMe<sub>2</sub> afforded I (X = O) (VI), m. 221-3°, dimethanesulfonate m. 190-5°; 2HCl salt.2H<sub>2</sub>O m. 238-42°. Also prepared were II (X = O), m. 193°; 2HCl salt.2H<sub>2</sub>O m. 269-72°; I (X = S); 2HCl.1-2H<sub>2</sub>O m. 212-14°; II (X = S), 2HCl salt 200-5°. To 29.6 g. V in 300 ml. CHCl<sub>3</sub> was added dropwise 14 g. (COCl)<sub>2</sub> in 50 ml. CHCl<sub>3</sub>, the mixture stirred 6 hrs. at 70° and worked up to yield N,N'-(4,4'-diacetyldiphenyl)parabanic acid (VII), m. 259-62°. To 3.5 g. VII in 20 ml. HCONMe<sub>2</sub> was added 3.92 g. IV in 6 ml. H<sub>2</sub>O and 6.15 ml. 6.15N HCl, and the mixture was stirred 10 hrs. at 80° to yield the bisguanyldiazone (VIII).2HCl.2H<sub>2</sub>O [R:CMe:NNHC(:NH)NH<sub>2</sub>], 225-31°, of VII. Alkaline hydrolysis m. of VIII afforded VI.

IT 20782-55-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

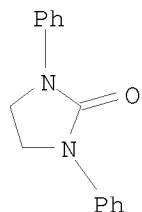
RN 20782-55-2 HCAPLUS

CN Imidazolidinetrione, bis(p-acetylphenyl)- (8CI) (CA INDEX NAME)



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L4 ANSWER 469 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1968:506801 HCAPLUS  
DOCUMENT NUMBER: 69:106801  
ORIGINAL REFERENCE NO.: 69:20027a,20030a  
TITLE: Synthesis of 2-chloroalkyl(N-dialkyl) carbamates and thiocarbamates  
AUTHOR(S): Sineokov, A. P.; Kholodenko, G. E.; Etlis, V. S.  
CORPORATE SOURCE: USSR  
SOURCE: Zhurnal Organicheskoi Khimii (1968), 4(9), 1661-4  
CODEN: ZORKAE; ISSN: 0514-7492  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
GI For diagram(s), see printed CA Issue.  
AB The reaction between ethylene oxide, 1,2-epoxypropylene, epithioethane, 1,2-epithiopropylene, epichlorohydrin, or 1,2-epithio-1-chloromethylpropane and R<sub>2</sub>NOC<sub>2</sub>CHR'CH<sub>2</sub>Cl (I) (where R is Me, Et, or CH<sub>2</sub>CH<sub>2</sub>Cl and R' is H, Me, or CH<sub>2</sub>Cl) or R<sub>2</sub>NCOSCH<sub>2</sub>CHR'Cl (II) (R and R' as above). The reaction of Et<sub>2</sub>NOC<sub>2</sub>Cl with phenylethylenimine (III) gave, instead of the expected Et<sub>2</sub>NCONPhCH<sub>2</sub>CH<sub>2</sub>Cl (IV) 1-phenyl-3-ethylimidazolidin-2-one (V). Evidently the unstable IV cyclized to V with the elimination of EtCl. In the same way III reacted with MeNPhCONPhCH<sub>2</sub>CH<sub>2</sub>Cl to give 1,3-diphenyl analog of V.  
IT 728-24-5P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 470 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1968:506675 HCAPLUS  
DOCUMENT NUMBER: 69:106675  
ORIGINAL REFERENCE NO.: 69:19995a,19998a  
TITLE: Reactions of aryl isocyanates with substituted formamides and formamidines  
AUTHOR(S): Dyer, Elizabeth; Majewski, Theodore E.; Travis, John D.  
CORPORATE SOURCE: Univ. of Delaware, Newark, DE, USA  
SOURCE: Journal of Organic Chemistry (1968), 33(10), 3931-2  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI For diagram(s), see printed CA Issue.  
AB Aryl isocyanates are treated with HCONMe<sub>2</sub> to give 1,3,6,8,10-pentakis(aryl)-1,3,6,8,10-pentazaspiro[4.5]decane - 2,4,7,9-tetraones

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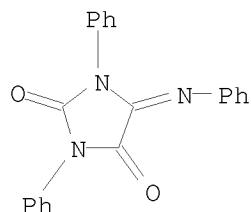
(I). 2-Dimethylamino - 1,3,5 - triphenylhexahydro - 1,3,5 - triazine - 4,6-dione (II) is prepared from PhNCO and HC(:NPh)NMe<sub>2</sub>; II is converted to I (Ar = Ph) (Ia). The pyrolysis of Ia gives 1,3-diphenylparabanic acid 5-anil (III).

IT 17350-50-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 17350-50-4 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylimino)- (CA INDEX NAME)



L4 ANSWER 471 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:497331 HCAPLUS

DOCUMENT NUMBER: 69:97331

ORIGINAL REFERENCE NO.: 69:18274h,18275a

TITLE: Heat stable polymers. VII. Polyhydantoins

AUTHOR(S): Salle, Robert; Sillion, Bernard; De Gaudemaris, Gabriel

CORPORATE SOURCE: Inst. Francais Petrole, Grenoble, Fr.

SOURCE: Bulletin de la Societe Chimique de France (1968), (8), 3378-86

CODEN: BSCFAS; ISSN: 0037-8968

DOCUMENT TYPE: Journal

LANGUAGE: French

GI For diagram(s), see printed CA Issue.

AB Heat-stable polyhydantoins (I), e.g. poly[(2,4-imidazolidinedione) - 3,1 - diyl - m - phenylene(2,4 - imidazolidinedione)-1,3-diyl-p-phenyleneoxy-p-phenylene] (Ia), are prepared by treating alkyl N,N'-arylenediglycinates (II), e.g. m-(EtO<sub>2</sub>-CCH<sub>2</sub>NH)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>, m. 72°, with a free isocyanate, e.g. (p-OCN-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>O, or a Ph urethane (III), e.g. (p-PhO<sub>2</sub>CNHC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CMe<sub>2</sub>, in an inert atmospheric The intermediate poly(ureido esters) cyclize to give I.

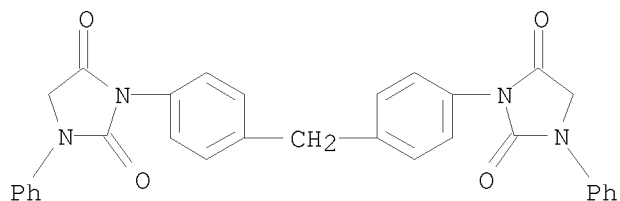
I prepared from II and III could be molded to transparent film with a decomposition threshold at 300-20°.

IT 18657-65-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 18657-65-3 HCAPLUS

CN Hydantoin, 3,3'-(methylenedi-p-phenylene)bis[1-phenyl- (8CI) (CA INDEX NAME)



L4 ANSWER 472 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:496579 HCAPLUS

DOCUMENT NUMBER: 69:96579

ORIGINAL REFERENCE NO.: 69:18075a,18078a

TITLE: Synthesis and conversions of amidomercaptals. IV. Reaction of formamidomercaptals with isocyanates and isothiocyanates

AUTHOR(S): Ivanova, I. A.; Fedorov, B. P.; Stoyanovich, F. M.

CORPORATE SOURCE: Inst. Org. Khim. im. Zelinskogo, Moscow, USSR

SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1968), (3), 576-83

CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 69:96579

GI For diagram(s), see printed CA Issue.

AB Reaction of amidomercaptals with ArNCO gave 1,3-diaryl-5-dialkylamino-5-alkylmercaptohydantoins and minor amts. of S-alkyl esters of thiolo-carbamic and 2,4-diarylthioloallophanic acids. Keeping equimolar mixts. of ArNCO with R1R2NCH(SR3)2 several hrs. at room temperature gave 1,3-diaryl-5-dialkylamino-5-alkylmercaptohydantoins (I) in 68-92% yields (Ar, NR1R2, R3, and m.p. given): Ph, NMe2, Me (Ia), 112-12.5°; Ph, NMe2, Et, 126-7.5°; Ph, NMe2, Pr, 118.5-19.5°; Ph, morpholino, Et, 127.5-8°; C10H7, NMe2, Et, 170-1.5°. When Me2NCH(SET)2 and PhNCO were kept without a solvent there was formed 75% I and 36% ArN(COSR)CONHAr (II, Ar = Ph, R = Et), m. 118-19°. Similar reaction in Me2NCHO gave only I; in heptane there was formed 78% I and 7% II; in excess PhNCO the reaction gave 65% I; in Me2NCHO at 80-90° the reaction gave only I. Heating Ia in alc. HCl gave 82% 1,3-diphenylparabanic acid, m. 206-7°. Keeping 2 moles ArNCO, 1 mole RSH and 1 mole Et3N 1 day gave 80-100% II (Ar, R and m.p. given): Ph, Et (IIa), 118-19°; Ph, Pr, 88-9°; Ph, Bu (III), 90.5-1.5°; Ph, Ph, 150.5-1°; Ph, PhCH2, 144.5-5°; C10H7, Pr, 127-31°. PhNHCOSBu kept with 1 mole PhNCO and a trace of Et3N 1 day gave 95% III. Heating IIa in aqueous alc. KOH 2 hrs. gave diphenylurea. Refluxing an equimolar mixture of PhNCS and R1R2NCH(SR3)2 4 hrs. in absolute EtOH gave after addition of hexane a precipitate of R1R2NCSNHPh (or Ar) and the filtrate yielded R3SH and 32-68% of the following ArN:C(SR3)(OEt) (R3, b.p., and nD20 given): Et, b3 152-3°, 1.6050; Bu, b3 160-3°, 1.5858. Use of other alcs. in place of EtOH gave the following PhN:C(SR3)(OR) (R3, b.p., and nD20 given): Et, Me (IV), b17 176-7°, 1.6170; Et, Bu, b5 168-70°, 1.5855; Bu, Bu, b5 178-80°, 1.5722. Heating 1.2 g. Me2NCH(OMe)2 and PhNHCS2Et 3 hrs. at 80-90° gave 70% IV. Me2NCH(OMe)2 and thiobenzanilide (V) in 6 hrs. at 80-90° gave 100% PhN:CphSMe, m. 61-2°, which was

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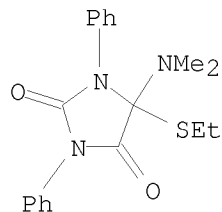
also formed from V and Me<sub>2</sub>NCH(SMe)<sub>2</sub>. The latter heated with V in absolute EtOH 6 hrs. gave 62% PhN:CphSEt, b<sub>5</sub> 168-70°, n<sub>D</sub><sup>20</sup> 1.6210.

IT 6451-30-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 6451-30-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-(dimethylamino)-5-(ethylthio)-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 473 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:77438 HCAPLUS

DOCUMENT NUMBER: 68:77438

ORIGINAL REFERENCE NO.: 68:14923a,14926a

TITLE: Thermal rearrangement of allylic phenylurethanes

AUTHOR(S): Synerholm, Martin E.; Gilman, Norman W.; Morgan, John  
Wallis; Hill, Richard Keith

CORPORATE SOURCE: Princeton Univ., Princeton, NJ, USA

SOURCE: Journal of Organic Chemistry (1968), 33(3), 1111-16  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 68:77438

GI For diagram(s), see printed CA Issue.

AB On heating to 200-40° with a catalytic amount of NaH, phenylurethanes of allylic alcs. rearrange, with expulsion of CO<sub>2</sub>, to N-phenylallyl amines. Predominant inversion of the allyl moiety occurs and the reaction is considered to proceed by a cyclic electron reorganization process. Rearrangement of optically active cyclohex-3-enyl phenylurethane (I) is accompanied by 65% retention of configuration and 35% racemization. Small amts. of imidazolidinones are found as by-products and a pathway for their formation, involving base-catalyzed cyclization of N-allylureas, is proposed and supported by testing the presumed intermediates. 32 references.

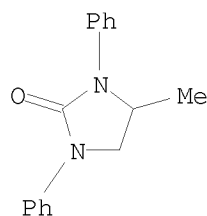
IT 15645-61-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

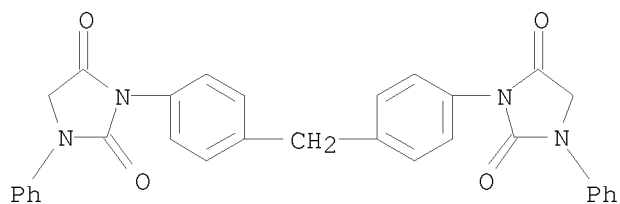
RN 15645-61-1 HCAPLUS

CN 2-Imidazolidinone, 4-methyl-1,3-diphenyl- (CA INDEX NAME)

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L4 ANSWER 474 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1968:59930 HCAPLUS  
DOCUMENT NUMBER: 68:59930  
ORIGINAL REFERENCE NO.: 68:11603a,11606a  
TITLE: Aromatic polyhydantoin from bisiminoacetate and diisocyanates  
AUTHOR(S): Imai, Yoshio  
CORPORATE SOURCE: Teijin Ltd., Tokyo, Japan  
SOURCE: Journal of Polymer Science, Part A-1: Polymer Chemistry (1967), 5(9), 2289-96  
CODEN: JPSPC3; ISSN: 0449-296X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Aromatic polyhydantoin of high mol. weight were prepared by a polyaddn.-cyclocondensation reaction of di-Et m-phenylenebisiminoacetate with aromatic diisocyanates in m-cresol. The polyhydantoin obtained from methylenebis(4-phenyl isocyanate) showed good thermal stability up to 400° in air. A transparent and tough film was cast from a m-cresol solution of the polymer.  
IT 18657-65-3P  
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
RN 18657-65-3 HCAPLUS  
CN Hydantoin, 3,3'-(methylenedi-p-phenylene)bis[1-phenyl- (8CI) (CA INDEX NAME)



L4 ANSWER 475 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1968:59670 HCAPLUS  
DOCUMENT NUMBER: 68:59670  
ORIGINAL REFERENCE NO.: 68:11547a,11550a  
TITLE: Organometallic reactions. X. Preparation and reactions of some alkynyllead compounds  
AUTHOR(S): Davies, Alwyn George; Puddephatt, R. J.  
CORPORATE SOURCE: Univ. Coll., London, UK

Updated Search



10501317

SOURCE: Journal of the Chemical Society [Section] C: Organic  
(1968), (3), 317-22  
CODEN: JSOOAX; ISSN: 0022-4952

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 68:59670

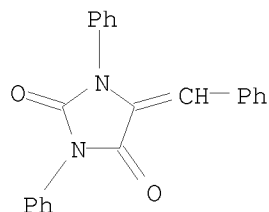
GI For diagram(s), see printed CA Issue.

AB Trialkylalkynyllead compds. were prepared by treating trialkyllead methoxides with alkynes, and by thermal decarboxylation of trialkyllead alkynylcarboxylates. The alkynyl-lead bond is more reactive than the alkyl-lead bond, and takes part in Grignard-like reactions. The alkynyllead compds. react with AcCl to give the corresponding alkynyl methyl ketones. With aryl isocyanates, phenylethynyltriethyl-lead reacts to give a 1,3-diaryl-5-benzylidenehydantoin (I), which can also be prepared by ring-closure of an N,N'-diaryl-N-phenylpropiolylurea, obtained by the addition of phenylpropiolic acid to a diarylcarbodimide. A similar ring closure, which would give 5-benzyl-1,3-diphenylhydantoin, could not be induced in N-cinnamoyl-N,N'-diphenylurea. 23 references.

IT 4514-33-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 4514-33-4 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)- (CA INDEX NAME)



L4 ANSWER 476 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:30119 HCAPLUS

DOCUMENT NUMBER: 68:30119

ORIGINAL REFERENCE NO.: 68:5883a,5886a

TITLE: Synthesis of polyhydantoins

AUTHOR(S): Iwakura, Yoshio; Uno, Keikichi; Hara, Shigeyoshi; Takase, Yuzo

CORPORATE SOURCE: Univ. Tokyo, Tokyo, Japan

SOURCE: Yuki Gosei Kagaku Kyokaishi (1967), 25(4), 343-8  
CODEN: YGKKAE; ISSN: 0037-9980

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI For diagram(s), see printed CA Issue.

AB A mixture of 0.83 g. 4,4'-diphenylmethane diisocyanate in 3 ml. AcNMe<sub>2</sub> is dropped into a stirred mixture (kept at 40°) of 1 g. N-phenylglycine and 5 ml. AcNMe<sub>2</sub> under N, the whole heated at 60° for 3 hrs., and poured into H<sub>2</sub>O to give I, showing no m.p. I (1 g.) is refluxed in 50 ml. Ac<sub>2</sub>O to give 0.8 g. II, m. 228° (decomposition). 4,4'-Diphenylmethane diisocyanate (0.8 g.) in 5 ml. AcNMe<sub>2</sub> is dropped into a solution of 1.0 g. III in 5 ml. AcNMe<sub>2</sub> N, the whole stirred for 1 hr., and poured into 20

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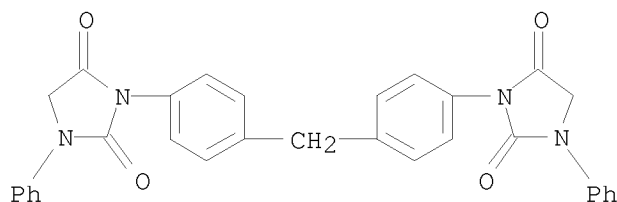
vols. H<sub>2</sub>O to give 1.5 g. IV (R = Q), which is refluxed in 50 ml. Ac<sub>2</sub>O and 1 ml. pyridine for 5 hrs. to give 95.8% V (R = Q), m. 264-80°. Similarly prepared are the following V (R and m.p. given): p-phenylene, 318° (decomposition); 4-methyl-m-phenylene, 234-42°. V are insol. in most of organic solvents.

IT 18657-65-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 18657-65-3 HCAPLUS

CN Hydantoin, 3,3'-(methylenedi-p-phenylene)bis[1-phenyl- (8CI) (CA INDEX NAME)



L4 ANSWER 477 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1967:482381 HCAPLUS

DOCUMENT NUMBER: 67:82381

ORIGINAL REFERENCE NO.: 67:15563a,15566a

TITLE: Synthesis and transformation of some N-phenylglycine derivatives

AUTHOR(S): Eckstein, Zygmunt; Plenkiewicz, Jan; Sak, Marek

CORPORATE SOURCE: Politech, Warsaw, Pol.

SOURCE: Roczniki Chemii (1967), 41(3), 493-502

CODEN: ROCHAC; ISSN: 0035-7677

DOCUMENT TYPE: Journal

LANGUAGE: Polish

GI For diagram(s), see printed CA Issue.

AB N-Arylglycine Et esters and their derivs., such as N-arylaminoacetohydroxamic acids, Et N,N'-diarylhydantoates, and 1,3-diarylhydantoin, were prepared to test their antifungal activity against *Fusarium culmorum*, *Alternaria tenuis*, and *Rhizoctonia solani*. Thus, 0.1 mole ArNH<sub>2</sub>, 0.1 mole AcONa, and 0.1 mole ClCH<sub>2</sub>CO<sub>2</sub>Et in 20 ml. EtOH was refluxed 8 hrs. to give ArNHCH<sub>2</sub>CO<sub>2</sub>Et (I) (method A). I were prepared from 0.1 mole ArNHCH<sub>2</sub>CO<sub>2</sub>H (II) in 30 ml. anhydrous EtOH, treated during 4 hrs. with dry HCl, then kept 24 hrs. at room temperature (method B). The following

I were reported. (Ar, m.p., % yield, and method of preparation given): 4-IC<sub>6</sub>H<sub>4</sub>, 85-7°, 50, A; 3,4-ClMeC<sub>6</sub>H<sub>3</sub>, 91-3°, 57, A; 3,4-Cl(MeO)C<sub>6</sub>H<sub>3</sub>, 110-12°, 46, A; 3,4-I(MeO)C<sub>6</sub>H<sub>3</sub>, 109-10°, 53, A; 2,5-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 30-1°, 38, B; 3,4-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 104-6°, 64, A; 2,3,4-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 61-3°, 38, B; 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 77-8°, 41.5, B; 3,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 135-7°, 48, A; 2,5,4-Cl<sub>2</sub>BrC<sub>6</sub>H<sub>2</sub>, 76-8°, 53.5, B. 2,5-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>NHAc (120 g.) in 400 ml. AcOH with a small amount of Fe dust and 90 ml. HCl was treated dropwise at 60° with an aqueous solution of 22.5 g. NaClO<sub>3</sub> to give 105 g. 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>NHAc (III), m. 180-2° (C<sub>6</sub>H<sub>6</sub>). When hydrolyzed in 250 ml. EtOH and 70 ml. 30% NaOH, III gave 80 g. 2,4,5-trichloroaniline (IV), m. 92-4°. IV (40 g.) in 60 ml. EtOH

Updated Search

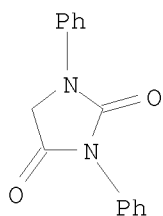
was diluted with 18 g. 30% formalin and 1.5 g. 30% aqueous KOH, heated to 80°, and treated while vigorously stirring, with 13.5 g. KCN in 23 ml. water. The resulting mixture was heated 4.5 hrs. and acidified to give 52% II (Ar = 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>) (V), m. 184-5°. Similarly prepared were II (Ar = 4-IC<sub>6</sub>H<sub>4</sub>), m. 121-3°, and II (Ar = 2,3,4-Cl<sub>3</sub>H<sub>6</sub>H<sub>2</sub>), m. 206-8°, in 48 and 56% yields, resp. Oxidative chlorination of 21.8 g. II (Ar = 2,5-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>) (VI) at 20° with NaClO<sub>3</sub> carried out as described above afforded 7.5 g. V. Similarly 21.8 g. VI in 120 ml. AcOH heated to 80°, then cooled to 18°, diluted with 24 ml. 40% HBr containing a small amount of Fe dust, and treated at 20° with 3.8 g. NaClO<sub>3</sub> in 5 ml. H<sub>2</sub>O gave 17 g. II (Ar = 2,4,5-Cl<sub>2</sub>BrC<sub>6</sub>H<sub>2</sub>), m. 187-9°. I (0.05 mole) in 30 ml. C<sub>6</sub>H<sub>6</sub> and 6 g. PhNCO refluxed 10 hrs. gave PhNHCONArCH<sub>2</sub>CO<sub>2</sub>Et (VII), which were recrystd. from CCl<sub>4</sub>. The following VII were reported (Ar, m.p., and % yield given): Ph (VIII), 108.5-109, 94°; 3-MeC<sub>6</sub>H<sub>4</sub>, 92.5-3.5°, 90; 4-MeC<sub>6</sub>H<sub>4</sub>, 99-100°, 98; 3-ClC<sub>6</sub>H<sub>4</sub>, 125-7°, 85; 4-ClC<sub>6</sub>H<sub>4</sub>, 130-2°, 97; 4-BrC<sub>6</sub>H<sub>4</sub>, 126.5-27°, 88; 3,4-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 149-50°, 98. Ir spectra of these VII are reported. VIII (36.6 g.) in 30 ml. EtOH refluxed 3 hrs. and diluted while hot with alc. until the mixture became clear gave 84% IX (Ar = Ph, R = H, X = O) (X), m. 138-9°. X was also prepared in three other ways: (a) quant. by heating VIII 5 min. at 170° in dimethylformamide (DMF); (b) quant. when VIII was refluxed 5 hrs. with MeONa; (c) in 75.5% yield from 3.32 g. PhNHCH<sub>2</sub>CONHOH and 25 ml. DMF treated with 2.4 g. PhNCO in 7 ml. DMF, and heated 10 hrs. at 70°. The following IX were reported (Ar, R, X, m.p., and % yield given): 3-MeC<sub>6</sub>H<sub>4</sub>, H, O, 150-1.5°, 89; 4-MeC<sub>6</sub>H<sub>4</sub>, H, O, 166-8°, 82; 3-ClC<sub>6</sub>H<sub>4</sub>, H, O, 173.5-75°, 98; 4-ClC<sub>6</sub>H<sub>4</sub>, H, O, 173-5°, 90; 4-BrC<sub>6</sub>H<sub>4</sub>, H, O, 173-4°, 90; 3,4-ClC<sub>6</sub>H<sub>4</sub>, H, O, 191.5-93°, 88; Ph, H, S, 211-12°, 82; Ph, 4-Cl, S, 218-20°, 65. Hydroxylamine (prepared from 5.3 g. hydroxylamine-HCl in 35 ml. MeOH when treated with MeONa, obtained from 2.4 g. metallic Na in 50 ml. MeOH) was treated with 0.03 mole I and left 48 hrs. at room temperature to give the following ArNHCH<sub>2</sub>CONHOH [Ar, m.p. (decomposition), and % yield given]: Ph, 117-18°, 82; 4-FC<sub>6</sub>H<sub>4</sub>, 111.5-12°, 80; 2-ClC<sub>6</sub>H<sub>4</sub>, 122.5-23°, 80; 3-ClC<sub>6</sub>H<sub>4</sub>, 107.5-8.0°, 76; 4-ClC<sub>6</sub>H<sub>4</sub>, 97.5-98°, 75; 4-BrC<sub>6</sub>H<sub>4</sub>, 98-9°, 68; 3-IC<sub>6</sub>H<sub>4</sub>, 116-16.5°, 85; 4-IC<sub>6</sub>H<sub>4</sub>, 107.5-8.0°, 75; 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 132-3°, 51; 2-MeC<sub>6</sub>H<sub>4</sub>, 126.5-27°, 70; 3-MeC<sub>6</sub>H<sub>4</sub>, 109.5-10°, 63; 4-MeC<sub>6</sub>H<sub>4</sub>, 120.5-21°, 68; 2-EtC<sub>6</sub>H<sub>4</sub>, 104-5°, 79; 4-MeOC<sub>6</sub>H<sub>4</sub>, 136.5-7.5°, 74; 2,4-F<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 118.5-19.5°, 65; 2,5-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 136-7°, 85; 3,4-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 110-11°, 83; 3,4-ClMeC<sub>6</sub>H<sub>3</sub>, 117-18°, 86; 3,4-Cl(MeO)C<sub>6</sub>H<sub>3</sub>, 135-6°, 88; 3,4-I(MeO)C<sub>6</sub>H<sub>3</sub>, 149-9.5°, 89; 2,3,4-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 127.5-28°, 80; 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 122.5-23°, 74; 3,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>2</sub>, 106-7.5°, 89; 2,5,4-Cl<sub>2</sub>BrC<sub>6</sub>H<sub>2</sub>, 131.5-2.5°, 81.

IT 3157-03-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 478 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1967:465006 HCAPLUS  
 DOCUMENT NUMBER: 67:65006  
 ORIGINAL REFERENCE NO.: 67:12283a,12286a  
 TITLE: Polymers containing heterocyclic hydantoin groups  
 PATENT ASSIGNEE(S): Institut Francais du Petrole, des Carburants et  
 Lubrifiants  
 SOURCE: Neth. Appl., 19 pp.  
 CODEN: NAXXAN  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Dutch  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6612276		19670303	NL 1966-12276	19660831
FR 1536923			FR	
PRIORITY APPLN. INFO.:			FR	19650902

AB The title polymers are prepared by treating a dialkyl N,N'-arylenediglycinate (I) with an arylene diisocyanate, giving a prepolymer which is then heated, splitting off alc. and forming the hydantoin ring, or by treating I with a N,N'-bis(alkoxycarbonyl) arylendiamine. Thus, a mixture of 25 g. diphenylmethane 4,4'-diisocyanate and 28 g. di-Et N,N'-m-phenylenediglycinate (II) was heated to 200° in 2 hrs., and held at 200° for 15 hrs., giving a yield of 90% of a clear yellow prepolymer (III), inherent viscosity (0.5 weight % in AcNMe<sub>2</sub> at 30°) 0.08. III was heated at 250° and 0.1 mm. for 5 hrs., giving a polymer inherent viscosity 0.32. A prepolymer was prepared by heating di-Me N,N'-m-phenylenediglycinate 4, diphenylmethane 4,4'-diisocyanate 4.4, Me<sub>2</sub>SO 8.4, and di-tert-butylphenol 0.17 g. for 30 min. at 160°, and a dry fabric was impregnated to a level of 36% prepolymer using a solution. The solvent was evaporated in vacuo over 15 hrs. at 100°, and the fabric was laminated and cured for 5 min. at 125°, 1 hr. at 225° and 3 kg./cm.<sup>2</sup>, 3 hrs. at 250° and 5 kg./cm.<sup>2</sup>, 6 hrs. at 280° and 20 kg./cm.<sup>2</sup>, and 1 hr. at 200° and 20 kg./cm.<sup>2</sup>. The product had tensile strength 56 and 49 kg./mm.<sup>2</sup> at 20 and 200°, resp., and modulus of elasticity 2500 and 2200 kg./mm.<sup>2</sup> at 20 and 200°, resp. Other compds. used as monomers were diphenyl ether 4,4'-diisocyanate and tolylene 2,4-diisocyanate. A mixture of 43.8 g. bis(phenoxy carbamoyl)-4,4'-diphenylmethane and 28 g. II was heated for 7 hrs. under Ar at 250°, with the inert gas stream carrying away the phenol and EtOH formed. Cooling gave a solid, faintly yellow polymer mass, which was dissolved in 500 ml. m-cresol and then precipitated with 2500 ml.

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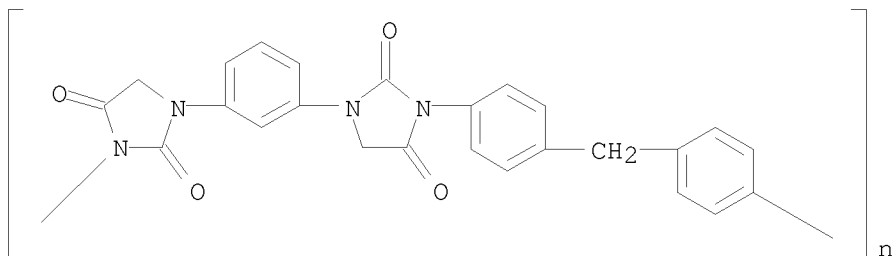
ether, giving a product with an inherent viscosity of 0.75. Colorless films 15  $\mu$  thick were prepared by solvent casting, and had tensile strength 12 kg./mm.<sup>2</sup> and elongation at break 5%. After aging 200 hrs. at 180°, these values were 10 and 2, resp. The optical properties of the film were little affected by heat aging. Other monomers used in this process were N,N'-bis(Et glycinate)di-p-phenylene oxide, methylenebis[N-(p-phenylene)glycinate], and 2,4-bis(phenoxy carbamoyl)toluene. These polymers have improved heat resistance.

IT 31671-96-2P

RL: PREP (Preparation)  
(preparation of)

RN 31671-96-2 HCAPLUS

CN Poly[(2,5-dioxo-1,3-imidazolidinediyl)-1,3-phenylene(2,4-dioxo-1,3-imidazolidinediyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L4 ANSWER 479 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1967:464395 HCAPLUS

DOCUMENT NUMBER: 67:64395

ORIGINAL REFERENCE NO.: 67:12131a,12134a

TITLE: Imidazolidone derivatives

INVENTOR(S): Ohashi, Takashi; Mitsunobu, Hiroumi; Mukaiyama, Mitsuaki; Kubota, Naotake

PATENT ASSIGNEE(S): Bridgestone Tire Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 2 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 42003384	B4	19670213	JP	19641203

GI For diagram(s), see printed CA Issue.

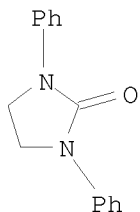
AB Manufacture of N,N'-diphenyl-2-imidazolidone (I) from 2-diethylamino-4-methyl-1,3,2-dioxaphospholane (II) was described. Thus, 10.62 g. II is refluxed 3 hrs. with 8.22 g. N-phenylethanolamine and 20 ml. PhMe to give 86.3%  $\beta$ -anilinoethylpropylene phosphite (III), b0.1 114-15°. III (2.41 g.) is refluxed 3 hrs. with 1.19 g. phenyl isocyanate in 20 ml. PhMe, evaporated in vacuo, and to the residue is added NaOEt to give 13.4% I, m. 213-15°.

IT 728-24-5P

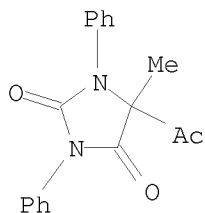
Updated Search

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RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 480 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1967:443743 HCAPLUS  
DOCUMENT NUMBER: 67:43743  
ORIGINAL REFERENCE NO.: 67:8219a,8222a  
TITLE: A new synthesis of 5-acylhydantoins, precursors of  
 $\beta$ -oxo- $\alpha$ -amino acids  
AUTHOR(S): Ramirez, Fausto; Bhatia, S. B.; Smith, Curtis Page  
CORPORATE SOURCE: State Univ. of New York, Stony Brook, NY, USA  
SOURCE: Journal of the American Chemical Society (1967),  
89(12), 3030-3  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 67:43743  
AB A new reaction leading to 5-acylhydantoins, the precursors of  
 $\beta$ -oxo- $\alpha$ -amino acids, is described. In this reaction, a  
trialkyl phosphite induces the condensation of one mol. of an  
 $\alpha$ -diketone with two mols. of an aryl isocyanate with formation of  
the 5-acylhydantoin and a trialkyl phosphate. Three steps are involved,  
and the intermediates can, but need not, be isolated. The intermediates  
are organic compds. with pentacovalent P as shown by  $^{31}\text{P}$  N.M.R. spectroscopy.  
16 references.  
IT 14625-07-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 14625-07-1 HCAPLUS  
CN 2,4-Imidazolidinedione, 5-acetyl-5-methyl-1,3-diphenyl- (CA INDEX NAME)



Updated Search

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L4 ANSWER 481 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1967:85782 HCAPLUS  
DOCUMENT NUMBER: 66:85782  
ORIGINAL REFERENCE NO.: 66:16067a,16070a  
TITLE: 2-Iminooxazolidines-polyester stabilizers  
INVENTOR(S): Metzger, Sidney H.  
PATENT ASSIGNEE(S): Mobay Chemical Co.  
SOURCE: Fr., 9 pp.  
CODEN: FRXXAK  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 1450919		19660826	FR	
DE 1569199			DE	
GB 1114146			GB	
GB 1115150			GB	
GB 1120080			GB	
US 3594387		19710720	US	19641009
US 3689499		19720905	US	19681028
US 3770693		19731106	US	19701201
PRIORITY APPLN. INFO.:			US	19641009

GI For diagram(s), see printed CA Issue.

AB The title compds. are prepared from a 1,2-epoxide or a 1,2 alkyl carbonate and a carbodiimide in an inert solvent in the presence of a basic catalyst, such as a tetraalkylammonium bromide. Stability to heat of polyester formulations is improved on addition of the title compds. Thus, to diphenyldicarbodiimide (I) 145 in an autoclave is added a solution of ethylene oxide (II) 53.1, in dioxane (250 by volume) and Et<sub>4</sub>NBr (III) 3 parts. The mixture is stirred 75 min. at 200-12°; the pressure rises to 2.8 kg./cm.<sup>2</sup> The mixture is cooled to yield 3-phenyl-2-phenyliminooxazolidine (IV), m. 115°. Propylene oxide and I yields 2-phenylimino-3-phenyl-5-methyloxazolidine (V), while I, II, III and bis(4-ethoxyphenyl)carbodiimide yields 3-(p-ethoxyphenyl)-2-(p-ethoxyphenylimino)oxazolidine (VI). A polyester prepared from adipic acid diethylene glycol and trimethylolpropane (mol. weight about 2000 with OH index of 57) is mixed with IV in the ratio of 100:1 ester-IV. To the solution is added with stirring 10 parts of a mixture containing 80% 2,4- and

20%

2,6-tolylene diisocyanate, poured to form a sheet about 0.3 cm. in thickness and the sheet heated 2 hrs. at 110°. The product does not soften after 144 hrs. on exposure to steam, but a polyester without IV softened after 105 hrs. of steam treatment. VI (in amts. of 1.35 and 4 parts), added to 150 parts polyester gave similar results. A mixture of 11.9 parts IV and 6.3 parts 4,4'-diisocyanatodiphenylmethane (VII) is heated between 75-127°/6 mm. and the volatile product removed through a fractionating column. The temperature was raised to 145°/1 mm. to give 4 parts pure phenyl isocyanate (VIII) and 10.4 parts IX, m. 216-18° (dioxane). A mixture of IV 47.6 and VII 25 in Na-dried Decalin (X) 100 parts is heated to boiling, then over a 3-hr. period between 80°/15 mm. and 126°/100 mm. to remove VIII and X and gives 95% IX, Similarly, IV 38.1, 2,4-tolylene diisocyanate 13.95 and X

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100 parts gives XI; XI is heated in X to 145-50° for 2 hrs. and on cooling the resulting oil solidified. After crystallization from Me2CO a product,

m. 178-80°, forms the ir of which indicates it to be XII.

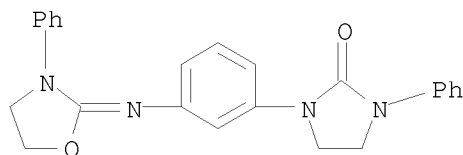
Stability data are given for other mixts. of polyesters in which the title compds. have been incorporated. Ir data is presented for certain of the title compds.

IT 13644-42-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 13644-42-3 HCAPLUS

CN 2-Imidazolidinone, 1-phenyl-3-[m-[(3-phenyl-2-oxazolidinylidene)amino]phenyl]- (8CI) (CA INDEX NAME)



L4 ANSWER 482 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1967:65420 HCAPLUS

DOCUMENT NUMBER: 66:65420

ORIGINAL REFERENCE NO.: 66:12291a,12294a

TITLE: Reactions of isocyanates with cyanohydrins. Synthesis of 2,4-oxazolidinediones and 1,3-disubstituted parabanic acids

AUTHOR(S): Patton, Tad L.

CORPORATE SOURCE: Spencer Chem. Co., Merriam, KS, USA

SOURCE: Journal of Organic Chemistry (1967), 32(2), 383-8

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Isocyanates react with cyanohydrins to form substituted 4-carbamoylimino-2-oxazolidinones which hydrolyze to 2,4-oxazolidinediones. Acetone cyanohydrin reacts with 3-chlorophenyl isocyanate to form two products: 3-(3-chlorophenyl)-4-(3-chlorophenylcarbamoyl-imino)-5,5-dimethyl-2-oxazolidinone and 1,3-bis(3-chlorophenyl)-4-imino-2,5-imidazolidinedione (I). The latter product arises from the reaction of the isocyanate with hydrogen cyanide which is formed when the cyanohydrin dissociate. Reaction conditions necessary to produce either product in high yield with the exclusion of the other are reported. Acid hydrolysis of the 4-imino-2,5-imidazolidinediones produces 1,3-disubstituted parabanic acids.

IT 6488-59-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

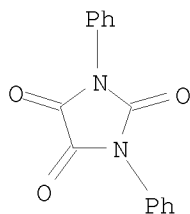
RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

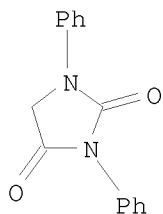
Updated Search



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L4 ANSWER 483 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1967:37200 HCAPLUS  
DOCUMENT NUMBER: 66:37200  
ORIGINAL REFERENCE NO.: 66:7047a  
TITLE: The infrared spectra of the CO-N-CO group  
AUTHOR(S): Seth Paul, Willem A.; Demoen, Paul J. A.  
CORPORATE SOURCE: Janssen Pharm. Res. Lab., Beerse, Belg.  
SOURCE: Bulletin des Societes Chimiques Belges (1966),  
75(7-8), 524-38  
CODEN: BSCBAG; ISSN: 0037-9646  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The ir carbonyl frequencies of a variety of hydantoins prepared as in Belg.  
663,432 (CA 65, 722g), Belg. 663,433 (CA 65, 722b), and Belg. 633,914 (CA  
60, 15880f), were determined The high frequency band can be attributed to the  
CO group in the 2-position. Acylation of the 1-N or 3-N atom probably  
effects a rehybridization of the N atom by which the s character of the  
adjacent CO bond is increased.  
IT 3157-03-7  
RL: PRP (Properties)  
(spectrum (ir) of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 484 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1966:412354 HCAPLUS  
DOCUMENT NUMBER: 65:12354  
ORIGINAL REFERENCE NO.: 65:2273a-e  
TITLE: Heterocyclic ethers  
INVENTOR(S): Martin, Dieter; Weise, Alfons  
SOURCE: 2 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable

Updated Search

10501317

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 44286		19660105	DD	19641210
PRIORITY APPLN. INFO.:			DD	19641210

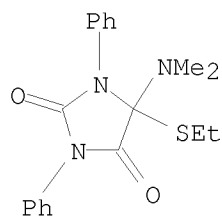
AB The title compds. were obtained by 1,3-cycloaddn. to ROCN, where R is (substituted) aryl or alkyl. PhOCN (6.2 g.) was added to a cold solution (from 0-5°) of 8.1 g. benzo-hydroxamoyl chloride in 60 ml. absolute Et2O, followed by dropwise addition of 5.72 g. Et3N in 50 ml. absolute Et2O within 90 min. with stirring. The mixture was allowed to stand overnight at room temperature, the precipitate (Et3N.HCl) filtered off, and the filtrate evaporated in vacuo. Diphenylfuroxan (2.4 g.) was filtered off and PhOCN removed in vacuo by heating to give on cooling 29% crude 3-phenyl-5-phenoxy-1,2,4-oxadiazole, m. 52-4° (aqueous EtOH). Similarly prepared were the following 1,2,4-oxadiazoles (3-substituent, 5-substituent, % yield, and m.p. given): Ph, 4-O2N-C6H4O, 43, 103-5°; Ph, 4-ClC6H4O, 39, 68-70°; 4-O2NC6H4, PhO, 37, 155-6°. To 1.4 g. NaN3 in 5 ml. H2O and 2 ml. Me2CO, 1.2 g. PhOCN in 3 ml. Me2CO was added. PhOCN was removed first from the cold mixture by heating to 60°, then Me2CO in vacuo to give on acidification with HCl and cooling 93.4% crude 5-phenoxytetrazole, m. 137-8° (H2O). Reported were the following 5-substituted tetrazoles (R, % yield, and m.p. given): MeO, 41, 153-4°; 4-MeC6H4O, 88, 140-1°; 4-MeOC6H4O, 93, 149-50°; 2-MeOC6H4O, 96, 166-7°; and 4-ClC6H4O, 51, 166-7°. Heating a mixture containing 4.6 g. phenylbenzhydrazide imide chloride, 3.5 g. PhOCN, 10 g. Et3N, and 60 cc. absolute C6H6 for .apprx.6 hrs. (Et3N.HCl precipitation), evaporating C6H6, dissolving the residue in 5 cc. warm EtOH, filtering (tri-Ph cyanurate), and addg. Et2O at -20° gave 48% 1,3-diphenyl-5-phe-noxy-1,2,4-triazole, m. 96-7°. Similarly prepared were the following 5-substituted 1,3-diphenyl-1,2,4-triazoles (R, % yield, and m.p. are given): 4-O2NC6H4O, 76, 142°; and 4-MeC6H4O, 30, 99°. To 60 g. PhOCN, 1.3 g. CH2N2 in Et2O (dried over KOH) was added in small portions and the Et2O removed in vacuo. The residue crystallized on rubbing with MeOH-petr. ether. The crystals were pressed on a clay plate, dropped into 60 cc. concentrated HCl, and allowed to stand overnight at room temperature. The precipitate was filtered off and the volume of the filtrate quadrupled with H2O. The separated oil solidified on cooling and was recrystd. from 60% EtOH to yield 72% 4-phenoxy-1,2,3-triazole, m. 91-2°. Analogously were prepared the following 4-substituted 1,2,3-triazoles (R, % yield, and m.p. given): MeOC6H4O, 74, 96-7°; 4-ClC6H4O, 29, 85-6°; and 4-MeC6H4, 59, 69-70°.

IT 6451-30-5P, Hydantoin, 5-(dimethylamino)-5-(ethylthio)-1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)

RN 6451-30-5 HCAPLUS

CN 2,4-Imidazolidinedione, 5-(dimethylamino)-5-(ethylthio)-1,3-diphenyl- (CA  
INDEX NAME)

Updated Search



L4 ANSWER 485 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:403963 HCAPLUS

DOCUMENT NUMBER: 65:3963

ORIGINAL REFERENCE NO.: 65:703c-g

TITLE: Reactions of amido phosphites. New synthesis of oxazolidine, imidazolidone, and thiazolidine derivatives

AUTHOR(S): Mitsunobo, Oyo; Ohashi, Takashi; Mukaiyama, Teruaki

CORPORATE SOURCE: Inst. Technol., Tokyo

SOURCE: Bulletin of the Chemical Society of Japan (1966), 39(4), 708-13

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 65:3963

GI For diagram(s), see printed CA Issue.

AB The synthesis of I, II, and III from  $\beta$ -aminoethyl phosphites and either PhNCO or PhNCS is described. PhNCO (2.38 g.) in 10 cc. dry MePh added dropwise to (PhNHCH<sub>2</sub>CH<sub>2</sub>O)<sub>2</sub>POEt (IV), prepared from 2.20 g. EtOP(NEt<sub>2</sub>)<sub>2</sub> (V) with 2.74 g. PhNHCH<sub>2</sub>CH<sub>2</sub>OH (VI), in 20 cc. dry MePh refluxed 3 hrs. yielded 1.35 g. I (R = Ph) (VII), m. 115-16° (EtOH); the filtrate evaporated, and the oily residue stirred at room temperature with NaOEt from

0.23 g. Na in 10 cc. dry C<sub>6</sub>H<sub>6</sub> until homogeneous gave 0.86 g. III (R = Ph) (VIII), m. 216-18° (AcOEt). Similarly were prepared the following I and II (R, % yield, and m.p. of I and of III given): p-MeC<sub>6</sub>H<sub>4</sub>, 69.5, 142-4°, 50.8, 191-3°; p-MeOC<sub>6</sub>H<sub>4</sub>, 57.4, 108-9°, 69.7, 212-13°; p-ClC<sub>6</sub>H<sub>4</sub>, 46.3, 136-8°, 11.2, 200-2°. 2-Ethoxy-3-phenyl-1,3,2-oxazaphospholidine (2.11 g.) and 1.37 g. VI in 5 cc. dry C<sub>6</sub>H<sub>6</sub> refluxed 3 hrs. and treated dropwise with 2.38 g. PhNCO in 15 cc. dry MePh at room temperature yielded 1.24 g. VII, m. 116-18° (EtOH), and 1.16 g. VIII, m. 215-17° (AcOEt). PhNCO (1.19 g.) in 10 cc. dry MePh added dropwise to 1.37 g. IV in 10 cc. dry MePh at room temperature

and

refluxed 3 hrs. gave 1.50 g. Ph(HOCH<sub>2</sub>CH<sub>2</sub>)NCONHPh (IX), m. 88-9° (AcOEt). V (2.20 g.) and 5.12 g. IX in 20 cc. dry MePh refluxed 10 hrs. with the removal of Et<sub>2</sub>NH gave 2.31 g. VII and 0.56 g. VIII. PhNCO (1.19 g.) in 10 cc. dry MePh added dropwise to 2.41 g. 2-anilinoethyl propylene phosphite (X) in 10 cc. dry MePh and refluxed 3 hrs., and the oily product refluxed 1 hr. with NaOEt from 0.23 g. Na in 10 cc. EtOH yielded 0.77 g. VIII, m. 218-19°. EtOP(O)Cl<sub>2</sub> (1.63 g.) in 20 cc. dry C<sub>6</sub>H<sub>6</sub> added dropwise to 5.12 g. IX in 30 cc. dry C<sub>6</sub>H<sub>6</sub> and refluxed 7 hrs., and the oily product treated with NaOEt from 0.46 g. Na in 15 cc. EtOH yielded 3.99 g. VIII, m. 209-10°. PhNCS (2.70 g.) in 10 cc. dry MePh added dropwise to 3.48 g. IV in 10 cc. dry MePh and refluxed 3 hrs. gave 3.59 g.

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II (R = Ph) (XI), m. 134-5° (EtOH). Similarly were prepared the following II (R, % yield, and m.p. given): p-MeC<sub>6</sub>H<sub>4</sub>, 81.2, 122-3°; p-MeOC<sub>6</sub>H<sub>4</sub>, 97.7, 117-18°; p-ClC<sub>6</sub>H<sub>4</sub>, 56.0, 105-6°. PhNCS (1.35 g.) in 10 cc. dry MePh and 2.14 g. X in 10 cc. dry MePh refluxed 5 hrs. yielded 1.0 g. XI, m. 131-2°.

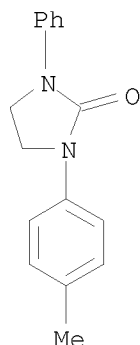
IT 6200-45-9

RL: PREP (Preparation)

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 6200-45-9 HCAPLUS

CN 2-Imidazolidinone, 1-(4-methylphenyl)-3-phenyl- (CA INDEX NAME)



L4 ANSWER 486 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:403962 HCAPLUS

DOCUMENT NUMBER: 65:3962

ORIGINAL REFERENCE NO.: 65:701e-h,702a-h,703a-c

TITLE: Model investigations of the biological activation of single carbon units. III. Synthesis and properties of phosphorylated models of tetrahydrofolic acid

AUTHOR(S): Kutzbach, Carl; Jaenicke, Lothar

CORPORATE SOURCE: Univ. Cologne, Germany

SOURCE: Justus Liebig's Annalen der Chemie (1966), 692, 26-41  
CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB cf. CA 55, 18824f; 57, 3441h; 58, 1683f. By the reaction of N,N'-diarylethylenediamines with POCl<sub>3</sub> and other phosphorylating agents with at least 2 active functional groups were formed cyclic diamidophosphates (N,N'-disubstituted-1,3,2-diazaphospholidines) (I). Salts, free acids, and esters of this type were prepared. The salts were stable in alkaline solution but were hydrolyzed in acid solns. to the amine and inorg. phosphate. In contrast to the 5-membered ring diester phosphates (1,3,2-dioxaphospholanes), no ring-opening intermediate was detected thereby. The hydrolysis consts. of I were measured at pH 3, 4, and 5 in various buffers. The hydrolysis consts. of I were measured at pH 3, 4, and 5 in various buffers. The cleavage of I was considerably accelerated by 0.1-1.0M formate buffer to yield up to 70% N-formyl-N,N'-diarylethylenediamines. Also noncyclic amidophosphates of aniline and methylaniline with an addnl. amide or ester function were formylated under the same conditions. The assumption of an N-phosphate of tetrahydrofolic

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acid as an intermediate of the enzymic formation of 10-formyltetrahydrofolic acid is therefore significant from the chemical standpoint. A mechanism of the cleavage reaction was proposed and discussed. (PhNHCH<sub>2</sub>)<sub>2</sub> (II) and its N-formyl (III) and N,N'-diformyl derivs. as well as (4-MeOCC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>)<sub>2</sub> (IIIa) were prepared essentially by literature procedures. The yield of III can be increased to 70% by use of 40% HCO<sub>2</sub>H in lieu of 98% HCO<sub>2</sub>H. For comparison purposes, the N-Ac and N,N'-di-Ac derivs. of II were prepared ClCH<sub>2</sub>CONHC<sub>6</sub>H<sub>4</sub>Cl-4 (15 g.) and 75 g. p-anisidine in 100 cc. dioxane refluxed 5 hrs. gave 27 g. 4-MeOC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CONHC<sub>6</sub>H<sub>4</sub>Cl-4.HCl (IV.HCl), which dissolved in a little MeOH and the solution made alkaline with aqueous KOH and diluted with H<sub>2</sub>O gave 14.8

g. IV,

m. 114-15° (MeOH-H<sub>2</sub>O). IV (14.5 g.) in absolute tetrahydrofuran (THF) added dropwise to 5.6 g. LiAlH<sub>4</sub> suspended in 400 cc. absolute THF and the mixture refluxed .apprx.5 hrs. gave 10.5 g. 4-MeOC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CH<sub>2</sub>NHC<sub>6</sub>H<sub>4</sub>Cl-4 (IVa), m. 88-91° (CCl<sub>4</sub>-cyclohexane). II (15 g.) and 20 cc. POCl<sub>3</sub> in 20 cc. xylene was refluxed .apprx.3 hrs. to give 17.2 g. crude I (R = R' = H, X = Cl) (V), m. 174.5° (C<sub>6</sub>H<sub>6</sub>). V (5 g.), 30 cc. 2N NaOH, and 30 cc. Me<sub>2</sub>CO refluxed 2 hrs. gave 4.3 g. I (R = R' = H, X = OH) (VI), m. 240-5° [aqueous HCONMe<sub>2</sub> (DMF) at <120°]. A concentrated solution of 6.5 g. VI in aqueous NH<sub>3</sub> diluted with dioxane and the precipitate recrystd.

from

dioxane-H<sub>2</sub>O and dried over CaCl<sub>2</sub> at 14 mm. gave 7 g. NH<sub>4</sub> salt (VII), containing 0.5 mole dioxane, m. 245° (decomposition). A solution of 100 mg. VI in hot DMF treated with excess cyclohexylamine gave 120 mg. cyclohexylammonium salt, m. 232-5° (decomposition). V (300 mg.) and a solution of PhCH<sub>2</sub>ONa (from 110 mg. PhCH<sub>2</sub>OH and 25 mg. Na) in 5 cc. Me<sub>2</sub>CO refluxed 1 hr. gave 150 mg. PhCH<sub>2</sub> ester (VIIa) of VI, m. 137-8° (CH<sub>2</sub>Cl<sub>2</sub>petr. ether). VII (2 g.) in MeOH treated with aqueous AgNO<sub>3</sub> gave 1.8 g. Ag salt (VIII) of VI, which (1.1 g.) refluxed 12 hrs. in the dark with 500 mg. PhCH<sub>2</sub>Br in 200 cc. absolute MeCN, gave 300 mg. VIIa. IVa (5.5 g.) and 6 cc. POCl<sub>3</sub> in 40 cc. xylene refluxed 1 hr. gave 6.4 g. crude I (R = Cl, R' = OMe, X = Cl) (IX), m. 180-3° (CHCl<sub>3</sub>-petr. ether). Crude IX (2 g.), 15 cc. Me<sub>2</sub>CO, and 15 cc. 2N NaOH refluxed 2 hrs. gave 1.7 g. I (R = Cl, R' = OMe, X = OH), m. 225-7°. IIIa (6 g.) and 6 cc. POCl<sub>3</sub> in 40 cc. xylene refluxed until evolution of HCl ceased gave 4.2 g. I (R = R' = CO<sub>2</sub>Me, X = Cl), m. 240-2° (CHCl<sub>3</sub>), which (1.9 g.) refluxed 18 hrs. with 40 cc. 2.5N KOH and the resulting solution acidified with dilute H<sub>2</sub>SO<sub>4</sub> gave 1.6 g. I (R = R' = CO<sub>2</sub>H, X = OH), m. 350° (becomes yellow above .apprx.210°). III (2.4 g.) in 10 cc. CHCl<sub>3</sub> and 10 cc. Et<sub>3</sub>N treated dropwise with 1.36 cc. POCl<sub>3</sub> at -50°, stirred 2 hrs. at room temperature and 2 hrs. at 30°, stripped and the residue added to a mixture of 20 cc. 5N KOH, 20 cc. Me<sub>2</sub>CO, and ice, stirred 1 hr., and stripped. The alkaline solution (A) contained a mixture of II and III.

Concentrated aqueous

NH<sub>3</sub> and absolute EtOH was added to solution A in the cold, thereby

precipitating the

greater part of inorg. phosphate and chloride. The supernatant solution showed on paper chromatography (PC) using 6:3:1 iso-PrOH-concentrated aqueous NH<sub>3</sub>-H<sub>2</sub>O (solvent A) a strong zone at R<sub>f</sub> 0.45, which contained organically bound phosphate and fluoresced strongly after spraying with acid. This zone was eluted from a chromatogram with aqueous NH<sub>3</sub> containing several drops

2N

NaOH. The uv spectrum of this eluate after acidification was that of N,N'-diphenylimidazolinium chloride (X) (product of III and HCl). With the assumption of a complete elution of the zone, it was calculated that 12%

of the added III had been converted into the N'-phosphorylated derivative of III, Rf 0.45. From another chromatogram in 6:3:1 PrOH-concentrated aqueous NH<sub>3</sub>-H<sub>2</sub>O

(solvent B) at 4°, the zone (in this case it had Rf 0.62) was eluted with 0.1N HCl. The absorption at 313 mμ and inorg. phosphate were determined in the eluate. From each of 2 independent detns., a ratio of 0.206 micromoles/cc. III and 0.185 micromoles/cc. phosphate was obtained. VII (25 micromoles/cc.) in 0.1M phthalate, M acetate, or M formate buffer (pH 4) was incubated at 50°. After 1, 3, and 8 hrs. samples were removed and hydrolysis terminated by addition of aqueous NH<sub>3</sub>. The samples were subjected to PC in solvent B. All showed only inorg. phosphate (Rf 0.15) in increasing amts. and VII (Rf 0.85) in decreasing amts., but no other phosphate. After 12 hrs. the rest of the solns. was made strongly alkaline and extracted with Et<sub>2</sub>O. The exts. were investigated by TLC in solvent A. With the aid of standards, II and III were identified in the formate-buffered sample, while the phthalate- and acetate-buffered samples showed only II. VII (335 mg.) in 10 cc. H<sub>2</sub>O treated with 10 cc. 2M formate, adjusted to pH 7, kept 12 hrs. at 80°, made strongly alkaline, and extracted with Et<sub>2</sub>O, the extract concentrated to dryness, the residue dissolved in

hot dilute HCl, and the solution cooled gave 53 mg. X. VI (274 mg.) refluxed 5 hrs. with 244 mg. BzOH or 120 mg. AcOH in 5 cc. PhMe, PhMe removed in vacuo, the residue dissolved in dilute aqueous NH<sub>3</sub>, insol. material extracted

with Et<sub>2</sub>O, and the aqueous phase subjected to PC showed only phosphate reaction at the Rf values of inorg. phosphate and VI; in the Et<sub>2</sub>O phase II and N-Bzeriv. (XI) of II or N-Ac derivative (XII) of II, resp., were detected by TLC in solvent B with the aid of standards. XI and XII were obtained pure in small amts. by elution of the appropriate zones and identified by mixed m.ps. The yields (estimated) amounted to .apprx.40% for XI and .apprx.30% for XII. II (2.1 g.) and 2 g. BzCl in 30 cc. PhMe let stand 24 hrs. at room temperature gave 1.5 g. N,N-di-Bz derivative (XIII) of II, m. 193-6° (C<sub>6</sub>H<sub>6</sub>). II (2.1 g.) treated similarly with 700 mg. BzCl gave a filtrate which on TLC in 8:1:1 PrOH-concentrated aqueous NH<sub>3</sub>-H<sub>2</sub>O showed besides II and XIII an addnl.

spot with intermediate Rf. The mixture chromatographed on silica gel and eluted with CHCl<sub>3</sub> gave 180 mg. XI, m. 127-8° (petr. ether). Reactions of noncyclic amidophosphates with formate were studied. For this purpose the following were prepared: HOP(O)(NH<sub>2</sub>)(NMePh) (XIV), m. 137°, Rf 0.80 (30: 30: 38: 2 iso-PrOH-MeCOEt-H<sub>2</sub>O-concentrated aqueous NH<sub>3</sub>) (solvent C); HOP(O)(NHPh)<sub>2</sub> (XV), m. 170-80°, Rf 0.95 (solvent C); HOP(O)(Ph)NHPh (XVI), m. 128-30°, Rf 0.92 solvent C); anilinephosphoric acid (XVII), m. >220°. XIV, XV, or XVI (50 mg.) or 20 mg. XVII was dissolved sep. in the least amount aqueous NH<sub>3</sub> and the solution

neutralized with dilute HCl and treated with 5 cc. formate buffer (pH 4). The solns. were incubated 20 hrs. at 50°. Comparison expts. were made with PhNH<sub>2</sub> and PhNHMe in the same buffer. PC showed that all samples were completely hydrolyzed at this time. The amines were set free by addition of aqueous KOH, extracted with Et<sub>2</sub>O, and subjected to TLC on silica gel G

with 8:1 CHCl<sub>3</sub>-MeCOEt with PhNH<sub>2</sub> (XVIII) and PhNHMe (XIX) as standards. Color formation was effected with chromosulfuric acid reagent, XIX becoming colored only .apprx.30 min. after spraying. Rf values: XVIII, 0.4; PhNH<sub>2</sub> and XIX, 0.5; PhNHMe, 0.5. The results were as follows: XV and XVI each formed .apprx.40% XVIII, while XVII and PhNH<sub>2</sub> formed only

traces of XVIII; XIV formed .apprx.4050% XIX, but PhNHMe was not formylated. Hydrolysis of I proceeded in various buffers by first order (results tabulated). For determination of the formation of III in the hydrolysis

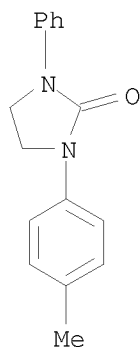
in formate buffer aliquot portions (0.6 cc.) were removed from the hydrolysis tests and mixed in a 1-cm. cuvet with 2.3 cc. H<sub>2</sub>O and 0.1 cc. concentrated HCl. Thereby, were formed from the N-formyl-N,N'-diarylethylenediamines, the corresponding imidazolinium salts. After 60 min., the uv absorption maximum was determined and, with the aid of the molar extinction consts., the concns. (C) formed calculated. The yields were then calculated from the equation % yield = 1250 + C (micromoles/cc.). In comparison expts., II was incubated with the same buffers; it showed after acidification only an insignificant increase in absorption at 313 mμ. Phosphate was found not to influence the hydrolysis rate of I, as determined with the pH 4 buffers 0.1M acetate, 0.1M phosphate in 0.1M acetate, and M phosphate in 0.1M acetate, the hydrolysis proceeding in all 3 buffers with the same half-life of 120 min.

IT 6200-45-9

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 6200-45-9 HCAPLUS

CN 2-Imidazolidinone, 1-(4-methylphenyl)-3-phenyl- (CA INDEX NAME)



L4 ANSWER 487 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:43786 HCAPLUS

DOCUMENT NUMBER: 64:43786

ORIGINAL REFERENCE NO.: 64:8170d-g

TITLE: Reaction of cyclic carbonates with symmetrically diaryl-substituted ureas and thioureas

AUTHOR(S): Gulbins, Erich; Hamann, Karl

CORPORATE SOURCE: Forschungsinst. Pigmente Lacke, Stuttgart, Germany

SOURCE: Chemische Berichte (1966), 99(1), 62-7

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 64:43786

GI For diagram(s), see printed CA Issue.

AB Cyclic 1,2-glycol carbonates or epoxides with (ArNH)<sub>2</sub>CO and (ArNH)<sub>2</sub>CS yielded the corresponding I and II. Ethylene carbonate (III) (26.4 g.), 21.2 g. (PhNH)<sub>2</sub>CO, and 42 mg. LiCl heated 8 hrs. under N at 176° yielded 23.0 g. I (R = Ph) (IV), b<sub>0.3</sub> 130°, m. 119° (aqueous

EtOH); the forerun of the distillation contained (CH<sub>2</sub>OH)<sub>2</sub> identified as (CH<sub>2</sub>O<sub>2</sub>CNHPH)<sub>2</sub>, m. 157° (EtOH). A similar 2.5-hr. run gave a forerun containing also PhNH<sub>2</sub> identified as (PhNH)<sub>2</sub>CO, m. 231°; the distillation residue gave less than 5% II (R = Ph) (V), m. 211° (EtOH). (PhNH)<sub>2</sub>CO with 2, 3, and 4 mole equivs. III heated 15 hrs. at 176° gave 49, 73, and 74% IV, resp. III (26.4 g.), 24.0 g. (p-MeC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CO, and 42 mg. LiCl heated 8 hrs. at 176° yielded 14.2 g. I (R = m-MeC<sub>6</sub>H<sub>4</sub>), b0.1 148-53°, m. 90° (aqueous EtOH), and less than 5% II (R = m-MeC<sub>6</sub>H<sub>4</sub>), m. 148°. III (26.4 g.), 24.0 g. (p-MeC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CO, and 42 mg. LiCl gave similarly 17.8 g. I (R = p-MeC<sub>6</sub>H<sub>4</sub>) (VI), b0.05-0.1 142-50°, m. 90° (aqueous EtOH). III (26.4 g.), 22.8 g. (PhNH)<sub>2</sub>CS, and 84 mg. LiCl heated 16 hrs. at 176° under N yielded 11.9 g. IV, b0.2-0.3 125-40°, and 13.5 g. V, b0.4 215-30°, m. 212-13° (EtOH). III (26.4 g.), 25.6 g. (p-MeC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CS, and 84 mg. LiCl gave similarly during 15 hrs. 9.6 g. VI, b0.05 136-45°, m. 88°, and 18.3 g. II (R = p-MeC<sub>6</sub>H<sub>4</sub>), b0.4 210-30°, m. 224°. III (26.4 g.), 28.8 g. (p-MeOC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CS, and 84 mg. LiCl gave similarly 12.3 g. I (R = p-MeOC<sub>6</sub>H<sub>4</sub>), b0.2-0.3 170-90°, m. 106°, and 20.6 g. II (R = p-MeOC<sub>6</sub>H<sub>4</sub>), m. 266°. III (26.4 g.), 29.7 g. (p-ClC<sub>6</sub>H<sub>4</sub>NH)<sub>2</sub>CS, and 84 mg. LiCl yielded similarly 13.5 g. I (R = p-ClC<sub>6</sub>H<sub>4</sub>), b0.1 132-45° m. 119°, and 15.3 g. II (R = p-ClC<sub>6</sub>H<sub>4</sub>), b0.2-0.7 230-50°, m. 208-9° (EtOH).

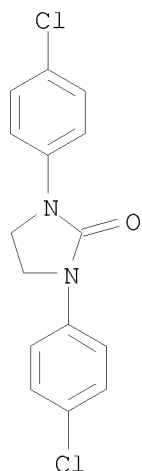
IT 5198-55-0

RL: PREP (Preparation)

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 5198-55-0 HCAPLUS

CN 2-Imidazolidinone, 1,3-bis(4-chlorophenyl)- (CA INDEX NAME)



L4 ANSWER 488 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:43785 HCAPLUS

DOCUMENT NUMBER: 64:43785

ORIGINAL REFERENCE NO.: 64:8169e-h, 8170a-d

TITLE: Aromatic nitrogen bridgehead compounds. I.  
Dipyrido-[1,2-c:2',1'-e]imidazolium and related



cations  
 AUTHOR(S): Calder, I. C.; Sasse, W. H. F.  
 CORPORATE SOURCE: Univ. Adelaide  
 SOURCE: Australian Journal of Chemistry (1965), 18(11),  
 1819-33  
 CODEN: AJCHAS; ISSN: 0004-9425  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI For diagram(s), see printed CA Issue.  
 AB The preparation and chemistry of the dipyrido[1,2-c:2',1'-e]imidazolium cation (I) is described. I is formed by the reaction of 2,2'-bipyridyl (II) and CH<sub>2</sub>I<sub>2</sub>, presumably via the 6H-derivative (III). I and related cations have properties characteristic of both  $\pi$ -electron excessive and  $\pi$ -electron deficient aromatic systems. Thus, I may be brominated, methylated, benzoylated, and acetylated in the 6-position. I also adds to MeCOCH:CH<sub>2</sub>. Hydroxyl ions in the presence of air produced the corresponding 2,2'-bipyridyls, as did the action of light and air. No other products were formed on protonation with concentrated H<sub>2</sub>SO<sub>4</sub>. The rate of bromination of 6-phenyldipyrido[1,2-c:2',1'-e]imidazolium chloride (IV) is comparable to that of naphthalene. II (15 g.), 7 g. CH<sub>2</sub>I<sub>2</sub>, and 50 ml. MeCN were refluxed 6 days under N. The solvent was distilled in vacuo and the residue extracted with petr. ether (b. 60-80°) to give II, then with boiling EtOH to give 6,6'-methylenebis(dipyrido-[1,2-c:2',1'-e]imidazolium) diiodide (V diiodide), identical with that prepared below; on cooling, the EtOH solution gave 2.0 g. I iodide, m. 255.5-6.5° (decomposition). Treatment of I iodide with the appropriate Amberlite IRA-400 resin gave I Cl-.H<sub>2</sub>O, m. 204-5° (decomposition) (EtOH); and I Br-.H<sub>2</sub>O, m. 220-5° (decomposition) (EtOH). I iodide in EtOH treated with aqueous picric acid gave the picrate, m. 218-19° (aqueous EtOH). II (15 g.) and 35 g. CH<sub>2</sub>I<sub>2</sub> was heated to 150° under N for 3 days and the solid which formed extracted with boiling EtOH to remove 1.7 g. I iodide and leave 15 g. material which was recrystd. (H<sub>2</sub>O) to give 8.5 g. V diiodide, m. 268-9° (decomposition); ion exchange gave V 2Br-.H<sub>2</sub>O, m. 270-90° (decomposition) (H<sub>2</sub>O-MeOH) and treatment with picric acid in EtOH gave V dipicrate, m. 215-16.5° (Me<sub>2</sub>CO-H<sub>2</sub>O). I Br- (0.5 g.), 0.75 g. CH<sub>2</sub>I<sub>2</sub>, and 2 ml. PhCN was heated 24 hrs. to 160° under N, and then treated with EtOH to precipitate 0.3 g. V bis(triiodide), m. 155-60° (decomposition) (EtOH). The following were similarly prepared from the appropriate dipyridyl and gem-dihalide [compound and m.p. (solvent)]: 2,10-dimethyldipyrido[1,2-c:2',1'-e]imidazolium chloride sesquihydrate, 225-8° (decomposition) (MeOH); 3,9-dimethyldipyrido[1,2-c:2',1'-e]imidazolium iodide, 273-5° (decomposition) (HCONMe<sub>2</sub>-Me<sub>2</sub>CO); 3,9-dimethyldipyrido[1,2-c:2',1'-e]imidazolium chloride hemihydrate, 285-6° (decomposition); IV chloride sesquihydrate, 277-9° (CHCl<sub>3</sub>); and IV picrate, 209-10° (MeOH-H<sub>2</sub>O). I Br- (0.25 g.) and 1 ml. MeI in 10 ml. MeCN was heated 3 days at 130° in a sealed tube, the volatile materials removed, and the residue dissolved in Me<sub>2</sub>CO and the solution filtered and evaporated to dryness to give 0.155 g. 6-methyldipyrido[1,2-c:2',1'-e]imidazolium triiodide, m. 168-70° (decomposition) (EtOH). I Cl- (0.035 g.) in 2 ml. C<sub>5</sub>H<sub>5</sub>N was added to 0.1 g. BzCl in 1 ml. C<sub>5</sub>H<sub>5</sub>N and the mixture refluxed 5 min., cooled, and filtered to give a residue which was washed with Me<sub>2</sub>CO and dissolved in H<sub>2</sub>O; addition of aqueous Na picrate gave 0.04 g. 6-benzoyldipyrido[1,2-c:2',1'-e]imidazolium picrate, m. 186-8° (Me<sub>2</sub>CO-H<sub>2</sub>O). I Br- (0.05 g.) in 3 ml. C<sub>5</sub>H<sub>5</sub>N was treated with 1 ml. AcBr in 5 ml. AcOH, and the mixture refluxed 15 min. and treated

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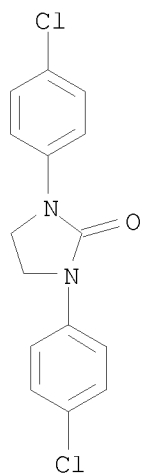
with 20 ml. Me<sub>2</sub>CO to give 0.027 g. 6-acetyldipyrido[1,2-c:2',1'-e]imidazolium chloride sesquihydrate, m. 278-80° (decomposition) (MeOH-Me<sub>2</sub>CO). I Br- (0.04 g.) and 1 ml. MeCOCH:CH<sub>2</sub> in 5 ml. MeOH was refluxed 2 hrs. and the volatile material removed to give a residue of 0.275 g. 6-(3-oxobutyl)dipyrido[1,2-c:2',1'-e]imidazolium bromide, m. 216-18° (decomposition) (MeOH-Me<sub>2</sub>CO-Et<sub>2</sub>O). I Br- (0.1 g.) in 25 ml. AcOH treated with 5% (weight/volume) Br-AcOH gave 6-bromodipyrido[1,2-c:2',1'-e]imidazolium tribromide, m. 146-8° (decomposition). II (5.0 g.) and 10 g. Ph<sub>2</sub>CCl<sub>2</sub> was heated to 160° 14 days, then the reaction mixture poured into 150 ml. H<sub>2</sub>O, and this made basic with K<sub>2</sub>CO<sub>3</sub> and extracted with CHCl<sub>3</sub>. The aqueous phase was acidified with HCl, evaporated to dryness, and chromatographed on acid-washed Celite, eluting with Me<sub>2</sub>CO, then treating with picric acid, to give 6,6-diphenyl-6H-dipyrido[1,2-c:2',1'-e]imidazolidinium dipicrate, m. 218-19° (EtOH). IV Cl- (0.5 g.) in 15 ml. AcOH treated with 0.6 g. Br in 5 ml. AcOH gave 6-phenyldipyrido[1,2-c:2',1'-e]imidazolium tribromide, m. 188-92° (decomposition). IV Cl- (1 g.) in 50 ml. AcOH was treated with 2.5 g. Br in 10 ml. AcOH and the solution refluxed 24 hrs. to give 1.05 g. 2,10-dibromo-6-phenyldipyrido[1,2-c:2',1'-e]imidazolium bromide, m. 258-61° (H<sub>2</sub>O); containing 1 mol. HOAc, m. 345-8° (decomposition) (HOAc).

IT 5198-55-0

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 5198-55-0 HCAPLUS

CN 2-Imidazolidinone, 1,3-bis(4-chlorophenyl)- (CA INDEX NAME)



L4 ANSWER 489 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:43771 HCAPLUS

DOCUMENT NUMBER: 64:43771

ORIGINAL REFERENCE NO.: 64:8163f-h,8164a

TITLE: Synthesis of N-aryl-substituted 2-oxazolidones

AUTHOR(S): Gulbins, Erich; Hamann, Karl

CORPORATE SOURCE: Forschungs Inst. Pigmente Lacke, Stuttgart, Germany

SOURCE: Chemische Berichte (1966), 99(1), 55-61

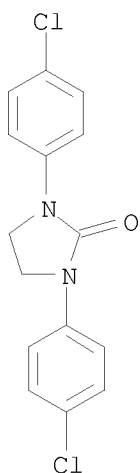
CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

Updated Search

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LANGUAGE: German  
OTHER SOURCE(S): CASREACT 64:43771  
GI For diagram(s), see printed CA Issue.  
AB Ethylene carbonate (I) and propylene carbonate (II) with 2 mole-equivs. aromatic amine at high temps. yielded the corresponding III. I (35.2 g.), 18.6 g. PhNH<sub>2</sub>, and 84 mg. LiCl heated 5 hrs. under N at 176° yielded 24.6 g. III (R = Ph, R' = H) (IV), b0.3 128-35°, m. 120° (aqueous EtOH). II (40.8 g.), 18.6 PhNH<sub>2</sub>, and 84 mg. LiCl gave similarly during 48 hrs. 26.7 g. III (R = Ph, R' = Me), b0.1 135-40° m. 79-80° (dilute EtOH). Similarly were prepared during 8 hrs. the following III (R' = H) (R, % yield, and m.p, or b.p./mm. given): m-MeC<sub>6</sub>H<sub>4</sub>, 74, 86°; p-MeC<sub>6</sub>H<sub>4</sub> (V), 69, 91°; m-MeOC<sub>6</sub>H<sub>4</sub>, 74, 76°; p-MeOC<sub>6</sub>H<sub>4</sub> (VI), 68, 109-10°; p-ClC<sub>6</sub>H<sub>4</sub> (VII), 77, 123-4°; m-ClC<sub>6</sub>H<sub>4</sub> (VIII), 70, 148°/0.3; m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 80, 112°; p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 93, 156-7°. From the distillation residues of the crude V and VI were obtained about 5% 1,4-di(p-tolyl)piperazine, m. 189-91°, and about 5-10% 1,4-bis(p-methoxyphenyl)piperazine, m. 234°, resp. The distillation residues from VII and VIII yielded about 5% each 1,3-bis(p-chlorophenyl)-2-imidazolidone (IX), m. 208-9°, and m-isomer of IX, m. 146° resp. I (17.6 g.), 18.6 g. PhNH<sub>2</sub>, and 84 mg. LiCl heated 4.5 hrs. under N at 176° yielded 13.1 g. PhNHCH<sub>2</sub>-CH<sub>2</sub>OH, b12 156-7° and 5.1 g. IV. I (35.2 g.), 25.5 g. o-Cl-C<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, and 84 mg. LiCl gave similarly during 8 hrs. 14.1 g. o-ClC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CH<sub>2</sub>OH, b0.03 100-5°. o-MeOC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> with 2 mole-equivs. I gave similarly 74% 1,4-bis-(o-methoxyphenyl)piperazine, m. 177°, and o-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> yielded 41% o-MeC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CH<sub>2</sub>OH, b0.01 96° and about 5% 1,4-di(o-tolyl)piperazine, m. 189-91°. The (CH<sub>2</sub>OH)<sub>2</sub> liberated in these reactions was identified with PhNCO as (CH<sub>2</sub>O<sub>2</sub>CNPh)<sub>2</sub>, m. 156°.  
IT 5198-55-0  
(Derived from data in the 7th Collective Formula Index (1962-1966))  
RN 5198-55-0 HCAPLUS  
CN 2-Imidazolidinone, 1,3-bis(4-chlorophenyl)- (CA INDEX NAME)



L4 ANSWER 490 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:43770 HCAPLUS

DOCUMENT NUMBER: 64:43770

ORIGINAL REFERENCE NO.: 64:8163a-f

TITLE: Synthesis of 3,5-substituted 2-oxazolidone derivatives by the reaction between N-aryllurethans and substituted phenyl glycidyl ethers

AUTHOR(S): Iwakura, Yoshio; Izawa, Shinichi

CORPORATE SOURCE: Univ. Tokyo

SOURCE: Yuki Gosei Kagaku Kyokaishi (1966), 24(1), 60-5  
CODEN: YGKKAE; ISSN: 0037-9980

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

GI For diagram(s), see printed CA Issue.

AB I is synthesized by the reaction of R1NHCOC2Et with II. In an example, 16.5 g. PhNHCOC2Et is heated with 15.0 g. phenyl glycidyl ether 30 min. at 90° in the presence of 0.5 g. NEt3 to give I (R1 = R2 = Ph), m. 139-40° (Me2CO), almost quant. Similarly are prepared the following I (R1, R2, and m.p. given): p-O2NC6H4, Ph, 162-3° (Me2CO); p-ClC6H4, Ph, 158-60° (Me2CO); p-EtOC6H4, Ph, 131-3° (Me2CO); p-tolyl, Ph, 149-51° (Me2CO); 2-pyridyl, Ph, 115-16° (EtOH); 1-naphthyl, Ph, 129-30° (EtOH); 2-naphthyl, Ph, 165-7° (Me2CO); o-Cl-C6H4, Ph, 121.5-2.5° (EtOH); o-tolyl, Ph, 115-16° (EtOH); p-AcOC6H4, Ph, 195-7° (Me2CO); p-EtOCOC6H4, Ph, 146-9° (EtOH); Ph, p-O2NC6H4, 198-9° (Me2CO); Ph, p-AcOC6H4, 144-6° (EtOH); Ph, p-ClC6H4, 192-4° (Me2CO); Ph, p-tolyl, 197-8° (Me2CO); Ph, p-Me3CC6H4, 138-40° (EtOH); Ph, o-tolyl, 91-4° (EtOH); Ph, 1-naphthyl, 132-4° (EtOH); Ph, 2-naphthyl, 206-8° (Me2CO); p-ClC6H4, p-O2NC6H4, 168-70° (dioxane); p-ClC6H4, p-AcOC6H4, 142-4° (EtOH); p-ClC6H4, p-ClC6H4, 183-6° (Me2CO); p-ClC6H4, p-tolyl, 205-7° (Me2CO); p-ClC6H4, p-Me3CC6H4, 145-7° (EtOH-Me2CO); p-ClC6H4, o-tolyl, 120-2° (EtOH); p-ClC6H4, 1-naphthyl, 137-9° (EtOH); p-ClC6H4, 2-naphthyl, 216-18° (Me2CO); p-EtOC6H4, p-O2N-C6H4, 150-2° (EtOH); p-EtOC5H4, p-AcOC6H4, 119-21° (EtOH); p-EtOC6H4, p-ClC6H4, 174-6° (Me2CO); p-EtO-C6H4, p-tolyl, 181-3° (Me2CO); p-EtOC6H4, p-Me3CC6H4, 125-7° (EtOH); p-EtOC6H4, o-tolyl, 111-13° (EtOH); p-EtO-C6H4, 1-naphthyl, 120-2° (EtOH); p-EtOC6H4, 2-naphthyl, 196-7° (Me2CO); p-tolyl, p-O2NC6H4, 170-2° (Me2CO); p-tolyl, p-AcOC6H4, 136-8° (EtOH); p-tolyl, p-ClC6H4, 199-201° (Me2CO); p-tolyl, p-tolyl, 198-9° (Me2CO); p-tolyl, p-Me3CC6H4, 151-3° (EtOH-Me2CO); p-tolyl, o-tolyl, 100-2° (EtOH); p-tolyl, 1-naphthyl, 123-5° (EtOH); p-tolyl, 2-naphthyl, 196-8° (Me2CO); 2-pyridyl, p-O2NC6H4, 197-9° (Me2CO); 2-pyridyl, p-AcOC6H4, 132-4° (EtOH); 2-pyridyl, p-ClC6H4, 181-3° (Me2CO); 2-pyridyl, p-tolyl, 171-3° (Me2CO); 2-pyridyl, p-Me3CC6H4, 112-14° (EtOH); 2-pyridyl, o-tolyl, 126-8° (EtOH); 2-pyridyl, 1-naphthyl, 147-9° (EtOH); 2-pyridyl, 2-naphthyl, 171-3° (EtOH-Me2CO); 1-naphthyl, p-O2NC6H4, 179-81° (Me2CO); 1-naphthyl, p-AcOC6H4, 126-8° (EtOH); 1-naphthyl, p-ClC6H4, 144-6° (EtOH); 1-naphthyl, p-tolyl, 146-8° (EtOH); 1-naphthyl, p-Me3CC6H4, 148-50° (EtOH-Me2CO); 1-naphthyl, o-tolyl, 140-1° (EtOH-Me2CO); 1-naphthyl, 1-naphthyl, 157-9° (EtOH); 1-naphthyl, 2-naphthyl, 146-8° (EtOH-Me2CO);

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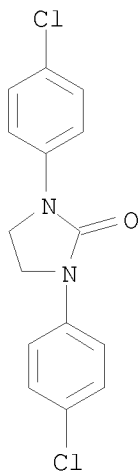
2-naphthyl, p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 223-5° (Me<sub>2</sub>CO); 2-naphthyl, p-AcOC<sub>6</sub>H<sub>4</sub>, 159-61° (EtOH-Me<sub>2</sub>CO); 2-naphthyl, p-ClC<sub>6</sub>H<sub>4</sub>, 207-8° (Me<sub>2</sub>CO); 2-naphthyl, p-tolyl, 214-16° (Me<sub>2</sub>CO); 2-naphthyl, p-Me<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, 161-3° (EtOH-Me<sub>2</sub>CO); 2-naphthyl, o-tolyl, 145-7° (EtOH-Me<sub>2</sub>CO); 2-naphthyl, 1-naphthyl, 138-40° (EtOH-Me<sub>2</sub>CO); 2-naphthyl, 2-naphthyl, 201-3° (Me<sub>2</sub>CO); o-ClC<sub>6</sub>H<sub>4</sub>, p-ClC<sub>6</sub>H<sub>4</sub>, 124-5° (EtOH); o-ClC<sub>6</sub>H<sub>4</sub>, p-tolyl, 103-4° (EtOH); o-ClC<sub>6</sub>H<sub>4</sub>, p-Me<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, 111-12° (EtOH); o-ClC<sub>6</sub>H<sub>4</sub>, 2-naphthyl, 136-7° (EtOH); o-tolyl, p-ClC<sub>6</sub>H<sub>4</sub>, 90-2° (EtOH); o-tolyl, p-tolyl, 84-5° (EtOH); o-tolyl, p-Me<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, 101-2° (EtOH); o-tolyl, 2-naphthyl, 129-30° (EtOH).

IT 5198-55-0

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 5198-55-0 HCAPLUS

CN 2-Imidazolidinone, 1,3-bis(4-chlorophenyl)- (CA INDEX NAME)



L4 ANSWER 491 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:19328 HCAPLUS

DOCUMENT NUMBER: 64:19328

ORIGINAL REFERENCE NO.: 64:3539g-h,3540a

TITLE: Reaction of sodium phenylacetylde with phenyl isocyanate

AUTHOR(S): Bird, C. W.

CORPORATE SOURCE: Queen Elizabeth Coll., London

SOURCE: J. Chem. Soc. (1965), (Oct.), 5762-4

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB An ethereal suspension of NaC:CPH, prepared by reaction of 1.5 g. PhC:CH and 0.25 g. Na in 15 ml. Et<sub>2</sub>O, was treated with 2.4 g. PhNCO (ice-bath), the mixture was refluxed for several min., and then set aside for 3 days. The red solid which separated was dissolved in EtOH and the solution diluted with

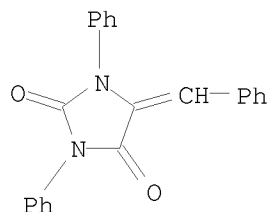
H<sub>2</sub>O and acidified. The semi-solid was extracted with CHCl<sub>3</sub> to yield 0.91 g.

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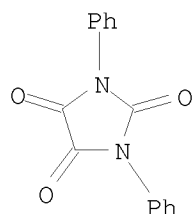
4-benzylidene-1,3-diphenylhydantoin (I), m. 189-90° (EtOH). Repetition of this preparation with 1.5 g. PhNCO afforded 84 mg. 5-benzylidene-2,3,4,5-tetrahydro-3-phenyl-1H-benzodiazepine (II), m. 202-3°. Hydrogenation of II in EtOH with 5% Pd-C gave the dihydroderiv., m. 122-4° (aqueous MeOH). Structures were assigned on the basis of ir and uv spectra. The identity of I was confirmed by comparison with an authentic sample.

IT 4514-33-4P, Hydantoin, 5-benzylidene-1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 4514-33-4 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)- (CA INDEX NAME)

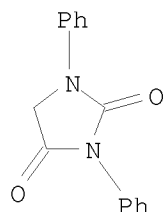


L4 ANSWER 492 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1965:445934 HCAPLUS  
DOCUMENT NUMBER: 63:45934  
ORIGINAL REFERENCE NO.: 63:8254g-h  
TITLE: Novel conversion of diphenylcarbodiimide by sodium naphthalene  
AUTHOR(S): Tsuzuki, Ryuichiro; Iwakura, Yoshio  
CORPORATE SOURCE: Univ. Tokyo  
SOURCE: Journal of Organic Chemistry (1965), 30(8), 2665-70  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The reaction of diphenylcarbodiimide with sodium naphthalenide complex was studied. Several products are formed depending upon experimental conditions, including N,N',N'',N'''-tetra-phenyloxamidine, 1,3-diphenyl-2,4,5-(triphenylimino)imidazolidine, N-(N',N''-diphenylguanyl)diphenylformamidine, and  $\beta$ -diphenylcarbodiimide. The reaction mechanism evidently involves, as an initial step, the transfer of one or two electrons from sodium naphthalene to the carbodiimide molecule.  
IT 6488-59-1P, Imidazolidinetrione, diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)

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L4 ANSWER 493 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1965:82574 HCAPLUS  
DOCUMENT NUMBER: 62:82574  
ORIGINAL REFERENCE NO.: 62:14680c-e  
TITLE: Synthesis of heterocycles. LXIII. 4-Hydroxy-6-imino-1,3-oxazines  
AUTHOR(S): Ziegler, E.; Steiner, E.  
CORPORATE SOURCE: Univ. Graz, Austria  
SOURCE: Monatshefte fuer Chemie (1965), 96(1), 212-15  
CODEN: MOCMB7; ISSN: 0026-9247  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
OTHER SOURCE(S): CASREACT 62:82574  
AB I were prepared from benzamide (II) and cyanoacetic acid (III), or substituted derivs. of II or III, in Ac2O at 100°. Thus, 1.2 g. II and 1.7 g. III was heated 2 hrs. at 100° in 12 ml. Ac2O to give 66% Ia, (R1 = R2 = H) (IV), m. 185°, not acetylated with Ac2O nor methylated with CH2N2. Similarly, the following I were prepared (R1, R2, % yield, and m.p. given): Cl, H, 80, 195° (HOAc); iso-PrO, H (V), 65, 183° (EtOH); H, iso-Bu, 37, 110° (EtOH) or aqueous acetone; Cl, iso-Bu, 61, 145° (MeOH). IV (1.9 g.) in a mixture of 60 ml. 10% aqueous Na2CO3, and 2 ml. 2N NaOH was cooled to 0°, and treated with the calculated amount of benzenediazonium chloride, the mixture acidified, and extracted with ether to give I (R1 = H, R2 = N:NPh), m. 208°. V (0.5 g.) was acetylated with 5 ml. HOAc and 2 ml. pyridine for 30 min. at 100° to give 2-(4-isopropoxy)-4-acetoxy-6-imino-1,3-oxazine, m. 118°.  
IT 3157-03-7P, Hydantoin, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



Updated Search

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L4 ANSWER 494 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:82573 HCAPLUS

DOCUMENT NUMBER: 62:82573

ORIGINAL REFERENCE NO.: 62:14680b-c

TITLE: Synthesis of heterocycles. LXII. Reactions with betaines

AUTHOR(S): Ziegler, E.; Wittmann, Helga; Orlinger, F.

CORPORATE SOURCE: Univ. Graz, Austria

SOURCE: Monatshefte fuer Chemie (1965), 96(1), 208-11

CODEN: MOCMB7; ISSN: 0026-9247

DOCUMENT TYPE: Journal

LANGUAGE: German

AB Reaction of betaines with aryl isocyanates at 120-180° was studied. Phenyl isocyanate (5 g.) was added to a suspension of 2.5 g. betaine (I) in 20 ml. Decalin at 160°. After 4 hrs., the mixture was filtered hot and the precipitate, 1,3-diphenylimidazolidine-2,4-dione, 82% yield, was crystallized from EtOH, m. 135°. II was obtained in only 57% yield after 2 hrs.; 48% in xylene solvent; and 27% by 1:1 ratio of reactants. I (1 g.) and 2.06 g. p-chlorophenyl isocyanate was heated 2 hrs. at 180° in 10 ml. high-boiling ligroine to give 23% 1,3-bis(4-chlorophenyl)imidazolidine-2,4-dione, m. 188°. A mixture of 1.5 g. propiobetaine and 3.87 g.  $\alpha$ -naphthyl isocyanate was heated at 120° until evolution of gas ceased to give 1,3-di- $\alpha$ -naphthyl-4,5-dihydrouracil, m. 321°..

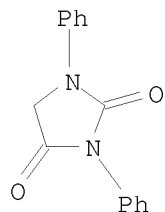
IT 3157-03-7P, Hydantoin, 1,3-diphenyl-

RL: PREP (Preparation)

(preparation of)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 495 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:14964 HCAPLUS

DOCUMENT NUMBER: 62:14964

ORIGINAL REFERENCE NO.: 62:2689g-h

TITLE: Thermal degradation of ethylene bis(N-phenylcarbamate)

AUTHOR(S): Ngoc-Son, Chu-Pham

SOURCE: Khao-Cuu Nien-San Khao-Hoc Dai-Hoc Duong (1962) 55-66

CODEN: AFSSAB; ISSN: 0558-1664

DOCUMENT TYPE: Journal

LANGUAGE: English

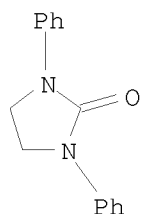
AB A kinetic and mechanistic study of the thermal decomposition of ethylene bis(N-phenylcarbamate) (I) at 180-215°, by isolation of products and by means of ir and N.M.R. measurements, showed simultaneous formation of PhNCO (II),  $\beta$ -hydroxyethyl N-phenylcarbamate (III),

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3-phenyl-2-oxazolidone (IV), CO<sub>2</sub>, and PhNH<sub>2</sub> (V). Further decomposition of III gave IV, CO<sub>2</sub>, V, and ethylene oxide. Simultaneously, II and V combined to form N,N'-diphenylurea (VI), while IV and V combined to give N,N'-diphenylethylenediamine (VII). On further reaction, VI and VII combined to form V and 1,3-diphenyl-2-imidazolidone (VIII). In the presence of triethylenediamine as a nucleophilic decomposition catalyst the evolution of CO<sub>2</sub> followed 1st-order kinetics. I was prepared directly from ethylene glycol and PhNCO in AcOEt, m. 156-7° and 168-70° (alc.-CHCl<sub>3</sub>), yield 90%, or stepwise, via III. VIII, m. 208-10° (Et<sub>2</sub>O), was prepared by heating 2 g. VII with 1 g. VI 6 hrs. at 210°; yield 10-18%.

IT 728-24-5P, 2-Imidazolidinone, 1,3-diphenyl-  
 RL: PREP (Preparation)  
 (formation in pyrolysis of ethylene dicarbanilate)  
 RN 728-24-5 HCAPLUS  
 CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 496 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:9072 HCAPLUS

DOCUMENT NUMBER: 62:9072

ORIGINAL REFERENCE NO.: 62:1644e-h,1645a-b

TITLE: Benzimidazole derivatives. XVI. Nitro alcohols and nitrovinyl derivatives of benzimidazoles

AUTHOR(S): Simonov, A. M.; Dalgatov, D. D.

CORPORATE SOURCE: State Univ., Rostov-on-Don

SOURCE: Zhurnal Obshchei Khimii (1964), 34(9), 3052-5  
 CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

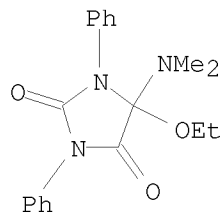
AB cf. CA 61, 5637f. To a solution of 1.37 g. PhCH<sub>2</sub>NO<sub>2</sub> in 8 ml. EtOH cooled to 0° was added 1 g. NaOH in 8 ml. H<sub>2</sub>O cooled to 0°, then, portionwise with stirring, a solution of 1.6 g. 1-methyl-2-formylbenzimidazole in 10 ml. EtOH. The mixture was allowed to stand 30 min. at 5° and 6N HCl added until the solution was neutral to litmus. The precipitate was filtered off, washed with H<sub>2</sub>O and alc., and dried at 70-80° to yield 2.2 g. Ib, m. 165.5-6.5° (decomposition) (alc. and Me<sub>2</sub>CO). Similarly, with MeNO<sub>2</sub>, was obtained Ia, m. 154-5° (decomposition) (MeOH); Ia methiodide m. .apprx.175° (rapid decomposition) (H<sub>2</sub>O). A mixture of 2.2 g. 2-(β-nitro-α-hydroxyethyl)-1-methylbenzimidazole and 5 ml. Ac<sub>2</sub>O was heated on the steam bath to dissolve the precipitate, the yellow solution was cooled, 40 ml. H<sub>2</sub>O added, and the mixture allowed to stand 2 hrs. The precipitate was filtered off and washed with

H<sub>2</sub>O, alc., and Et<sub>2</sub>O to yield 1.5 g. yellow IIa, m. 139-40° (decomposition) (alc.). IIa (2 g.) was dissolved with heating in 150 ml. anhydrous CHCl<sub>3</sub> and to the warm solution was added 1.6 g. Br. After 5-6 hrs., the CHCl<sub>3</sub> was distilled on a steam bath and the residue washed with aqueous NaHCO<sub>3</sub> and H<sub>2</sub>O to yield 2.15 g. yellow 2-(β-nitro-α-bromovinyl)-1-methylbenzimidazole, m. 212-13° (alc.). IIb was obtained analogously to IIa only by longer heating (30 min.); yield quant., yellow, m. 160.5-1.5° (decomposition) (alc.). 2-(β-Nitro-α-bromo-β-phenylvinyl)-1-methylbenzimidazole was prepared by treating IIb with an equimolar amount of Br in CHCl<sub>3</sub> solution; yield 85%, pale yellow, m. 248-9° (decomposition) (glacial HOAc). A solution of 2.79 g. IIb and 1.07 g. p-toluidine in 20 ml. anhydrous C<sub>6</sub>H<sub>6</sub> was refluxed 2 hrs., C<sub>6</sub>H<sub>6</sub> was distilled, and to the residue was added 50 ml. absolute Et<sub>2</sub>O. The solid was filtered off and washed with a small amount of Et<sub>2</sub>O to yield 2.97 g. 2-(βnitro-α-p-tolylamino-β-phenylethyl)-1-methylbenzimidazole, m. 153-3.5° (absolute alc.). Similarly was prepared 2-(β-nitro-α-phenylamino-β-phenylethyl)-1-methylbenzimidazole, light yellow, m. 172-3° (decomposition) (C<sub>6</sub>H<sub>6</sub>), yield 95%. To a warm solution of 2.79 g. IIb in 50 ml. anhydrous C<sub>6</sub>H<sub>6</sub> was added 1 g. morpholine. After 1 hr. C<sub>6</sub>H<sub>6</sub> was distilled, 20 ml. H<sub>2</sub>O added to the residue, and the precipitate filtered off and washed with H<sub>2</sub>O to yield 3.1 g. 2-(β-nitro-α-N-morpholyl-β-phenylethyl)-1-methylbenzimidazole, m. 140-1° (alc.). A mixture of 2.79 g. IIb and 0.33 g. NH<sub>2</sub>OH in 20 ml. 50% alc. was refluxed on a steam bath 1 hr. (the mixture decolorized), the alc. was distilled, and the residue filtered off and washed with H<sub>2</sub>O to yield 1.35 g. 2-formyl-1-methylbenzimidazole oxime, m. 206° (alc.). A suspension of 2.79 g. IIb and 1.3 g. PhCH<sub>2</sub>NH<sub>2</sub> in 100 ml. absolute Et<sub>2</sub>O was swirled periodically as it was allowed to stand at room temperature .apprx.2 hrs. until the precipitate dissolved and the solution decolorized. The Et<sub>2</sub>O was distilled, 40 ml. H<sub>2</sub>O added to the residue, and the precipitate filtered off and washed with H<sub>2</sub>O to yield 3.24 g. 1-methylbenzimidazole-2-carboxaldehyde benzylimide, m. 132.5-33° (aqueous alc.).

IT 2154-42-9P, Hydantoin, 5-(dimethylamino)-5-ethoxy-1,3-diphenyl-  
 RL: PREP (Preparation)  
 (preparation of)

RN 2154-42-9 HCAPLUS

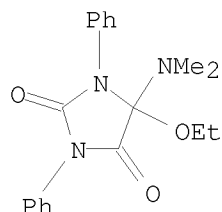
CN Hydantoin, 5-(dimethylamino)-5-ethoxy-1,3-diphenyl- (7CI, 8CI) (CA INDEX NAME)



L4 ANSWER 497 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1965:9071 HCAPLUS  
 DOCUMENT NUMBER: 62:9071

10501317

ORIGINAL REFERENCE NO.: 62:1644d-e  
TITLE: Synthesis of O,N-acetals of parabanic acid by reaction of amino acetals with isocyanates  
AUTHOR(S): Bredereck, H.; Simchen, G.; Goeknel, E.  
CORPORATE SOURCE: Tech. Hochschule, Stuttgart, Germany  
SOURCE: Angew. Chem. (1964), 76(20), 861  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
GI For diagram(s), see printed CA Issue.  
AB Heating HC(OEt)2NMe2 with 3 equivs. of PhNCO or C6H11NCO at 100-30° for several hrs. gave I (R = Ph) m. 120°, and I (R = C6H11) m. 93°, resp.  
IT 2154-42-9P, Hydantoin, 5-(dimethylamino)-5-ethoxy-1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 2154-42-9 HCAPLUS  
CN Hydantoin, 5-(dimethylamino)-5-ethoxy-1,3-diphenyl- (7CI, 8CI) (CA INDEX NAME)

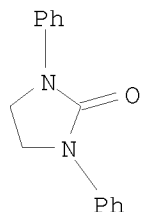


L4 ANSWER 498 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1965:2854 HCAPLUS  
DOCUMENT NUMBER: 62:2854  
ORIGINAL REFERENCE NO.: 62:476a-b  
TITLE: Thermal degradation of ethylene bis-(N-phenylcarbamate)  
AUTHOR(S): Beachell, H. C.; Ngoc Son, C. P.  
CORPORATE SOURCE: Univ. of Delaware, Newark  
SOURCE: Journal of Polymer Science (1964), 2(11;Pt. A), 4773-85  
CODEN: JPSCAU; ISSN: 0022-3832  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The degradation of ethylene bis(N-phenylcarbamate) (I, m. 156-7°, 168-70°, prepared from ethylene glycol and PhNCO) at 200-15° occurs by a double process of decomposition to give 3-phenyl-2-oxazolidone, CO2, and PhNH2, and a partial dissociation into monocarbamate and PhNCO. Further reaction produces ethylene oxide, N,N'-diphenylethylenediamine, N,N'-diphenyl-2-imidazolidone, and N,N'-diphenylurea. Degradation of β-hydroxyethyl N-phenylcarbamate at 180-205° yielded 3-phenyl-2-oxazolidone, CO2, and PhNH2. A mechanism for the degradation of I is proposed.  
IT 728-24-5P, 2-Imidazolidinone, 1,3-diphenyl-  
RL: PREP (Preparation)  
(formation from ethylene dicarbanilate)

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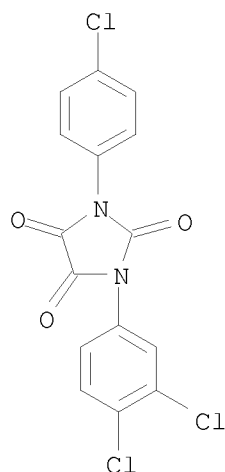
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 499 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1964:492337 HCAPLUS  
DOCUMENT NUMBER: 61:92337  
ORIGINAL REFERENCE NO.: 61:16059g-h,16060a  
TITLE: Preparation of parabanic acids from  
1,1,3-trisubstituted ureas via a Hofmann elimination  
reaction  
AUTHOR(S): Stoffel, P. J.  
CORPORATE SOURCE: Monsanto Co., St. Louis, MO  
SOURCE: Journal of Organic Chemistry (1964), 29(9), 2794-6  
CODEN: JOCEAH; ISSN: 0022-3263  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
GI For diagram(s), see printed CA Issue.  
AB cf. CA 59, 15276a. RR1NCONHR2 (I, R = CH<sub>2</sub>C.tplbond.CH, R<sub>1</sub> = BHMe<sub>2</sub>, R<sub>2</sub> = 3,4-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>) (0.1 mol) and 0.11 mol (COCl)<sub>2</sub> (in 100 mL. C<sub>6</sub>H<sub>6</sub> (xylene or PhMe) refluxed until evolution of HCl ceased, the mixture cooled, and the product crystallized from MeOH gave 81.5% 1,3-disubstituted parabanic acid (II, R = CH<sub>2</sub>C.tplbond.CH, R<sub>1</sub> = 3,4-Cl<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, X = O). Cyclization was accompanied by elimination of olefin and (or) alkyl halide via a typical Hofmann elimination. The reaction was general, as shown by tabulation of reactions with thioureas, hydantoates, and sulfonylureas to yield II. The data showed qual. that the predictably more facile leaving groups were eliminated preferentially, i.e., in agreement with the ease of formation and stability of the carbonium ion involved. (iso-PrNH)<sub>2</sub>CS refluxed in C<sub>6</sub>H<sub>6</sub> with (COCl)<sub>2</sub> gave the expected thioparabanic acid, whereas treatment at 30-5° probably gave oily iminothiazolidine-4,5-dione (III), gradually changing on keeping (or more rapidly on heating) to II (R = R<sub>2</sub> = iso-Pr, X = S). It seemed likely that the reaction of ureas with (COCl)<sub>2</sub> followed the same course.  
IT 97302-23-3P, Imidazolidinetrione, (p-chlorophenyl)(3,4-dichlorophenyl)-  
RL: PREP (Preparation)  
(preparation of)  
RN 97302-23-3 HCAPLUS  
CN Imidazolidinetrione, (p-chlorophenyl)(3,4-dichlorophenyl)- (7CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 500 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:492336 HCAPLUS

DOCUMENT NUMBER: 61:92336

ORIGINAL REFERENCE NO.: 61:16059d-g

TITLE: Synthesis of 5-substituted 2,4-thiazolidinedione derivatives with fungicidal activity

AUTHOR(S): Musial, Leopold; Staniec, Jadwiga

CORPORATE SOURCE: Norm. School, Krakow, Pol.

SOURCE: Roczniki Chemii (1964), 38(7-8), 1105-10

CODEN: ROCHAC; ISSN: 0035-7677

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB Two methods of synthesis of I were applied: (A) a mixture of 2.92 g. 2,4-thiazolidinedione (II), 3.5 g. m-ClC<sub>6</sub>H<sub>4</sub>CHO, 30 mL. glacial AcOH, 10 mL. Ac<sub>2</sub>O, and 30 g. anhydrous AcONa refluxed 4 h. and poured into 300 mL. hot H<sub>2</sub>O yielded 86.8% I (R = 3-Cl) (III), m. 214-15° (80% AcOH); (B) III was prepared (60.22%) by treating 7.1 g. II in 30 mL. EtOH with a solution of 2.4 g. NaOH in 10 mL. H<sub>2</sub>O and refluxing the precipitated α-thiocarbamoyl-m-chlorocinnamic acid Na salt 1 h. with 50 mL. concentrated HCl, evaporating to dryness, and heating 1 h. with 50 mL. H<sub>2</sub>O on a water bath. Similarly prepared were the following I (R, R', m.p., % yield by method A and B given): 3-MeO, -, 197-8° (AcOH), 94, 43.15; 2-MeO, 3-MeO(IV), 178° (AcOH), 87.92, 49.84; 2-MeO, 4-MeO, 246-7° (AcOH), 85.28, 41.54; 3-MeO, 4-MeO, 215-16° (AcOH), 89.05, 62.6; 2-MeO, 5-MeO, 268° (PhNO<sub>2</sub>), 93.2, 49.4. The high fungicidal activity of III and IV against Fusarium culmorum, Alternaria tenuis, and Botrytis cinerea was equal to that of CuOCl.

IT 97302-23-3P, Imidazolidinetrione, (p-chlorophenyl)(3,4-dichlorophenyl)-

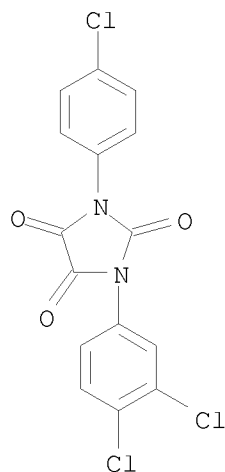
RL: PREP (Preparation)  
(preparation of)

RN 97302-23-3 HCAPLUS

CN Imidazolidinetrione, (p-chlorophenyl)(3,4-dichlorophenyl)- (7CI) (CA INDEX NAME)

Updated Search

10501317



L4 ANSWER 501 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:469119 HCAPLUS

DOCUMENT NUMBER: 59:69119

ORIGINAL REFERENCE NO.: 59:12786f-h

TITLE: Substituted 2-aminobenzimidazoles

AUTHOR(S): Joseph, Lionel

CORPORATE SOURCE: San Diego State Coll., San Diego, CA

SOURCE: Journal of Medicinal Chemistry (1963), 6(5), 601

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB A number of new 2-aminobenzimidazoles (I), for example II, were prepared and tested for their pharmacol. activity. The appropriate o-phenylenediamine was condensed with CNBr during 15 min., and NH<sub>4</sub>OH was used in place of NaOH to isolate the product from the acidic reaction mixture. The first five compds. of I were synthesized from com. o-phenylenediamine and the others from appropriate o-nitroaniline by tosylation, methylation, detosylation, and reduction to N-methyl-o-phenylenediamines. The following I were obtained (position and substituent, % average yield, and m.p. given): 5(or 6)-Me, 65, 203-4°; 5,6-Me<sub>2</sub>, 60, 228-9°; 4,6(or 5,7)-Me<sub>2</sub>, 55, 215-16°; 5(or 6)-Cl, 60, 169-70°; 1-Ph, 60, 154-5°; 1-Me, 75, 202-3°; 1,5-Me<sub>2</sub>, 57, 235-6°; 1,5,6-Me<sub>3</sub>, 83, 259-60°. Screening for circulatory effects in cats and rabbits showed that the most marked effect was on the conductive mechanism of the heart.

IT 3157-03-7P, Hydantoin, 1,3-diphenyl-

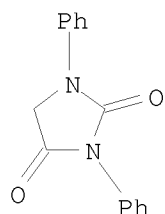
RL: PREP (Preparation)

(preparation of)

RN 3157-03-7 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)

Updated Search



L4 ANSWER 502 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1963:469118 HCAPLUS

DOCUMENT NUMBER: 59:69118

ORIGINAL REFERENCE NO.: 59:12786b-f

TITLE: Imidazoimidazoles. I. Reaction of ureas with glyoxal. Tetrahydroimidazo[4,5-d]imidazole-2,5-diones

AUTHOR(S): Nematollahi, Jay; Ketcham, Roger

CORPORATE SOURCE: Univ. of California Med. Center, San Francisco

SOURCE: Journal of Organic Chemistry (1963), 28(9), 2378-80  
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

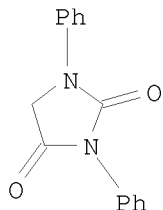
LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB To 71 g. tetrahydroimidazo[4,5-d]imidazole-2,5-dione [ $\nu$  (all in KBr) 1680, 3200  $\text{cm}^{-1}$ , nuclear magnetic resonance (all in  $\text{CF}_3\text{CO}_2\text{H}$ )  $\delta$  5.45] in 800 ml. 13% NaOH was added dropwise 100 ml.  $\text{Me}_2\text{SO}_4$  at 90-5°; the whole kept 0.25 hr. at 90-95°, 80 g. NaOH added, then 100 ml.  $\text{Me}_2\text{SO}_4$ , the process repeated, the whole concentrated, and the residue continuously with  $\text{C}_6\text{H}_6$  gave 20 g. 1,3,4,6-tetramethyltetrahydroimidazo[4,5-d]imidazole-2,5-dione (I), m. 225-7° (dioxane),  $\nu$  1715  $\text{cm}^{-1}$ ,  $\delta$  4.98, 2.73; alternately, to 0.725 g. 80%  $(\text{CHO})_2$  in 100 ml. MeOH and 0.5 ml. concentrated HCl was added 1.8 g.  $(\text{MeNH}_2)\text{CO}$  in 100 ml. MeOH; the whole heated 0.5 hr. at 100° gave 1.2 g. I. I has a dipole moment of 4.05 D., which indicated a cis configuration. The second procedure above was used with  $\text{MeNHCONH}_2$  to give 62% of a mixture of 1,4-dimethyltetrahydroimidazo[4,5-d]imidazole-2,5-dione, m. 298-300° ( $\text{H}_2\text{O}$ ),  $\nu$  1685, 3250  $\text{cm}^{-1}$ ,  $\delta$  2.75, 5.41, 5.09 and the more soluble 1,6-dimethyl derivative, m. 268-70° (dioxane-absolute EtOH),  $\nu$  1705, 3200  $\text{cm}^{-1}$ ,  $\delta$  2.58, 5.25; with  $\text{PhNHCONH}_2$  the procedure gave 22% 1,4-diphenyltetrahydroimidazo[4,5-d]imidazole-2,5-dione (II), m. 375-80° (cyclohexanone),  $\nu$  1710  $\text{cm}^{-1}$ ,  $\delta$  5.72, 7.03, and 17% 1-phenylhydantoin,  $\nu$  1725, 3210  $\text{cm}^{-1}$ ,  $\delta$  7.05, 4.13; with  $\text{PhNHCONHMe}$  the procedure gave 23% soluble 1-phenyl-3-methylhydantoin, m. 182-4° (MeOH) and an insol. solid separated by chromatography on Florisil and elution with  $\text{CH}_2\text{Cl}_2$ - $\text{C}_6\text{H}_6$  (1:1) containing 1% MeOH, to give first 1,4-dimethyl-3,6-diphenyltetrahydroimidazo[4,5-d]imidazole-2,5-dione (III),  $\nu$  1700  $\text{cm}^{-1}$ ,  $\delta$  2.81, 6.62, 5.17, 6.05, and then 1,6-dimethyl-3,4-diphenyltetrahydroimidazo[4,5-d]imidazole-2,5-dione (no physical properties given). To 5.5 g. II, 5 g. NaOH, and 150 ml. N-methylpyrrolidone at 120-150° was added 10 ml.  $\text{Me}_2\text{SO}_4$ , followed by 2 successive treatments with 3 g. NaOH and 10 ml.  $\text{Me}_2\text{SO}_4$ , as above to give 23% III, m. 260-5°,  $\nu$  1695  $\text{cm}^{-1}$ ,  $\delta$  5.65, 2.30, 7.05. 1,3-( $\text{PhNH}$ ) $_2\text{CO}$ , 10.6 g., 3.6 g.  $(\text{CHO})_2$ , 10 ml. concentrated HCl and 400 ml. 95% EtOH refluxed 60 hrs. gave 71%, 1,3-diphenylhydantoin, m. 134-6°,  $\nu$  1710, 1775  $\text{cm}^{-1}$ ,  $\delta$  7.06, 4.27.

10501317

IT 3157-03-7P, Hydantoin, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 503 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:46006 HCAPLUS

DOCUMENT NUMBER: 56:46006

ORIGINAL REFERENCE NO.: 56:8704b-e

TITLE: Mercaptoglucimidazoles

AUTHOR(S): Garcia Gonzalez, V. F.; Fernandez-Bolanos, J.; Paneque  
Guerrero, A.

CORPORATE SOURCE: Univ., Seville, Spain

SOURCE: Anales Real Soc. Espan. Fis. y Quim. (Madrid) (1961),  
57B, 379-82

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. CA 49, 11629i. D-Glucosamine (I) reacts with aryl or alkyl  
isothiocyanates to give 1-aryl or -alkyl-4,5-(D-glucopyrano)imidazolidine  
2-thiones (previously regarded as 1-aryl- or 1-alkyl-2-mercapto-4-arabo-  
tetrahydroxybutylimidazoles). To 0.01 millimole I in 9 cc. H<sub>2</sub>O is added  
0.01 millimole p-BrC<sub>6</sub>H<sub>4</sub>NCS and enough Me<sub>2</sub>CO to make the mixture homogeneous,  
let stand 2 days at room temperature, the Me<sub>2</sub>CO distilled, the residue  
concentrated on a

H<sub>2</sub>O-bath, cooled, and the crystalline product washed with H<sub>2</sub>O and alc. to yield  
1-(p-bromophenyl)-4,5-(D-glucopyrano)imidazolidine-2-thione, m.

232-4° (EtOH-H<sub>2</sub>O). To 0.01 millimole I.HCl in 10 cc. H<sub>2</sub>O is added

0.005 millimole K<sub>2</sub>CO<sub>3</sub> in 5 cc. H<sub>2</sub>O, α-C<sub>10</sub>H<sub>7</sub>NCS in Me<sub>2</sub>CO, and enough

Me<sub>2</sub>CO to make the mixture homogeneous, let stand 4 days, and worked up to

give 1-(α-naphthyl)4,5-(D-glucopyrano)imidazolidine-2-thione, m.

232-3°; 1-(β-naphthyl) analog m. 226-7°.

1-Phenyl-4,5-(D-glucopyrano)imidazolidin-2-one (0.01 millimole) in 30 cc.

C<sub>5</sub>H<sub>5</sub>N and 15 cc. Ac<sub>2</sub>O let stand 1 day at room temperature and then treated with  
100 cc. H<sub>2</sub>O yields a 3,4,6-triacetyl derivative, m. 151° (EtOH);

1-phenyl-4,5-(D-glucopyrano)imidazolidine-2-thione (II) similarly yields a

3,4,6-triacetyl derivative, m. 142° (EtOH-H<sub>2</sub>O). II is desulfurized by

heating with Raney Ni, 0.9 g. of the desulfurized product in 40 cc. H<sub>2</sub>O

oxidized with 3 g. NaIO<sub>4</sub> in 20 cc. H<sub>2</sub>O at 40°, let stand 1 hr. at

room temperature, extracted with 60 cc. CHCl<sub>3</sub>, the extract dried with CaCl<sub>2</sub>,

and the

CHCl<sub>3</sub> distilled in vacuo to obtain 1-phenylimidazole-4-carboxaldehyde, m.

129-30° (H<sub>2</sub>O).

IT 728-24-5

Updated Search

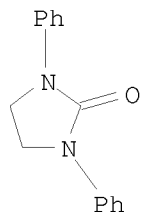


10501317

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 504 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:46005 HCAPLUS

DOCUMENT NUMBER: 56:46005

ORIGINAL REFERENCE NO.: 56:8703f-i, 8704a-b

TITLE: Addition reactions with epoxides

AUTHOR(S): Gulbins, Klaus; Hamann, Karl

CORPORATE SOURCE: Forschungsinst. Pigmente und Lacke, Stuttgart, Germany

SOURCE: Chemische Berichte (1961), 94, 3287-92

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 56:46005

AB Epoxides can be added to reactive double bond systems with the formation of heterocyclics. A plausible reaction mechanism is discussed. Styrene oxide (I) (12.0 g.), 19.4 g. (PhN:)2C (II), and 42 mg. LiCl heated 7 hrs. under N at 200° gave 4-Ph derivative of 1,3-diphenyl-2-imidazolidone (III), m. 153° (CH2Cl2-heptane). Ethylene carbonate (IV) (17.6 g.), 38.84 g. II, and 10 drops C5H5N heated 3 hrs. at 200° and distilled gave 26.7 g. III, b0.8 276-80°, m. 210-12° (C6H6). Propylene carbonate (13.1 g.), 24.2 g. II, and a small amount of LiCl heated 10 hrs. at 180° yielded 18.7 g. 4-Me derivative of III, b0.1 175-84°, m. 76-7°. I (24 g.), 42 g. azibenzil (V), and a small amount of LiCl heated carefully to 60° and then 4.5 hrs. at 180° gave 13.5 g. phenyl glycol acetal of Ph2C:C:O (VI), b0.8 225-30°. 2-Phenoxymethyloxirane (15 g.), 22.2 g. V, and a small amount of LiCl heated 5 hrs. at 190° yielded 16.4 g. phenoxymethyl glycol acetal of VI, b0.1 220-60°. IV (8.8 g.), 22.2 g. V, and a small amount LiCl heated 4 hrs. at 180° gave 11.2 g. glycol acetal (VII) of VI, b0.3 174-5°, m. 149-51°. Propylene carbonate (10.5 g.), 22.2 g. V, and LiCl heated 10 hrs. at 200° gave 12.0 g. propylene glycol acetal of VI, b0.2 150-70°, m. 158-60°. (CH2ONa)2 (10.8 g.) in 40 cc. hot methyl glycol and 20 cc. dioxane treated dropwise with 17.3 g. PhNCCl2 (VIII) during 1 hr., cooled, and poured into Et2O gave 13 g. 2-phenylimino-1,3-dioxolane (IX), b0.1 123-30°. MeCH(ONa)CH2ONa (12.0 g.) and 17.3 g. VIII yielded similarly 13.2 g. 4-Me derivative (X) of IX, b0.15 128-32°. VII (1 g.) in 1 cc. H2O and 10 cc. dioxane treated with 1 drop concentrated HCl, kept 1 day, and fractionated yielded 0.8 g. viscous oily Ph2CHCO2CH2CH2OH, b0.2 154-7°. VII (1 g.) in 10 cc. absolute MeOH and 20 cc. dioxane treated with 1 drop AcOH, refluxed 8 hrs., and fractionated gave about 0.8 g. 2-methoxy-2-

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diphenylmethyl-1,3-dioxolane, b0.15 131-2°, m. 73-5° (Et2O).  
IX (0.8 g.) and a small amount LiCl heated 5 hrs. at 200° and distilled  
gave 0.45 g. 3-phenyl-2-oxazolidone (XI), m. 118-21°. X (1 g.)  
yielded similarly the 5-Me derivative of XI, m. 76-8°.  
2-Phenylimino-3-phenyloxazolidine (1 g.) gave similarly 1 g.  
1,3-diphenyl-2-imidazolidone, m. 210-12°. The infrared absorption  
spectrum of VII is recorded.

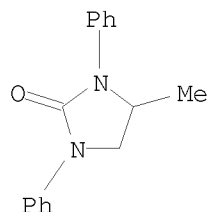
IT 15645-61-1

RL: PREP (Preparation)

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 15645-61-1 HCAPLUS

CN 2-Imidazolidinone, 4-methyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 505 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:46004 HCAPLUS

DOCUMENT NUMBER: 56:46004

ORIGINAL REFERENCE NO.: 56:8703e-f

TITLE: 3-Imidazoline-5-thiones from methyl ketones, sulfur,  
and ammonia

AUTHOR(S): Asinger, F.; Haaf, F.; Meisel, H.; Baumgarte, G.

CORPORATE SOURCE: Tech. Hochschule, Aachen, Germany

SOURCE: Angew. Chem. (1961), 73, 706

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

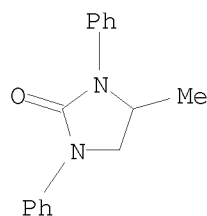
AB Treatment of methyl ketones with excess S and NH3 in alcs. at room temperature  
affords 3-imidazoline-5-thiones (I). I are also prepared by treating  
aldehyde cyanohydrins with oxo compds. and NH4HS and subsequent  
dehydrogenation of the imidazolidine-5-thiones thus obtained with S in  
HCONMe2. Treatment of  $\alpha$ -amino nitriles (derived from aldehydes)  
with H2S and ketones, followed by dehydrogenation of the reaction products  
with S, give also I. I are yellow, crystalline compds. in which the S can  
easily be replaced by O by oxidation with KMnO4 in Me2CO.

IT 15645-61-1

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 15645-61-1 HCAPLUS

CN 2-Imidazolidinone, 4-methyl-1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 506 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1962:7689 HCAPLUS

DOCUMENT NUMBER: 56:7689

ORIGINAL REFERENCE NO.: 56:1444a-f

TITLE: A nucleophilic carbene

AUTHOR(S): Wanzlick, Hans Werner; Schikora, Eberhard

CORPORATE SOURCE: Tech. Univ., Berlin

SOURCE: Chemische Berichte (1961), 94, 2389-93

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 56:7689

AB The elimination of  $\text{CHCl}_3$  from 1,3-diphenyl-2-trichloromethylimidazolidine (I) yields  $(\text{PhN} \cdot \text{CH}_2 \cdot \text{CH}_2 \cdot \text{NPh} \cdot \text{C})_2$  (II), a dimer which behaves chemically as a monomeric, nucleophilic carbene.  $(\text{PhNHCH}_2)_2$  (1.5 g.) in 7.5 cc. glacial AcOH treated 3 days with 3.8 g.  $\text{CCl}_3\text{CHO}$  yielded 1.9 g. (crude) I, m.  $136-7^\circ$  leaflets from 2:1 - MeOH- $\text{C}_6\text{H}_6$ . I (3.0 g.), 16 cc. dry o-xylene, and 3.3 cc. dry collidine heated 50 min. at  $180-5^\circ$ , cooled, and filtered after 2 h. gave 1.9 g. II, decomposing about  $285^\circ$  (dry xylene and sublimed at  $250^\circ/0.07$  mm.). II (3.0 g.) in 45 cc.  $\text{PhNO}_2$  and 15 cc.  $\text{CH}_2\text{Cl}_2$  treated with stirring with dry O during 4 h. and evaporated, and the residue digested with cold EtOH yielded 2.9 g. 1,3-diphenylimidazolidone, m.  $209-10^\circ$  (EtOH). II (1.5 g.) in 50 cc. refluxing  $\text{C}_5\text{H}_5\text{N}$  treated dropwise slowly with 12 cc.  $\text{H}_2\text{O}$ , diluted after about 2.5 h. with 13 cc.  $\text{H}_2\text{O}$ , cooled, kept overnight, and evaporated in vacuo yielded 1.6 g.  $\text{PhNHCH}_2\text{CH}_2\text{N}(\text{CHO})\text{Ph}$  (III), m.  $60-2^\circ$  ( $\text{CH}_2\text{Cl}_2$ -petr. ether). II (1.5 g.) in 20 cc. 85%  $\text{HCO}_2\text{H}$  concentrated in vacuo, and treated with

$\text{NH}_4\text{OH}$  gave 1.6 g. III. II (0.17 g.) added with stirring to 0.21 g.  $[\text{:C}(\text{CN})_2]_2$ , treated dropwise with 5 cc.  $\text{H}_2\text{O}$ , and filtered gave 0.18 g. IV, yellow, decompose about  $290-5^\circ$  with browning from  $250^\circ$  ( $\text{Me}_2\text{CO}-\text{C}_6\text{H}_6$ ). II (2.7 g.) and 15 cc. BzH heated 20 min. at  $120-35^\circ$  and distilled, and the residue digested with cold MeOH yielded 3.6 g. 1,3-diphenylimidazolidine (V), m.  $107-8^\circ$  (MeOH). II (4.6 g.) and 25 cc. cyclopentanone gave similarly 4.5 g. 2-(2-oxocyclopentyl) analog of V, m.  $107-9^\circ$  (EtOH-petr. ether), which hydrolyzed with dilute  $\text{H}_2\text{SO}_4$  yielded 2-formyl-1-cyclopentanone, m.  $72-5^\circ$ . II (3.5 g.), 6.5 cc. dry  $\text{MeNO}_2$ , and 15 cc. dry xylene refluxed 1 h. gave 3.2 g. 2-O $2\text{NCH}_2$  analog of V, greenish-yellowish needles, which decompose and turns red at about  $100-1^\circ$ .

IT 728-24-5P, 2-Imidazolidinone, 1,3-diphenyl-

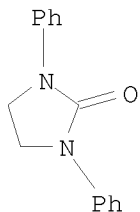
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(preparation of)

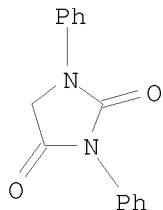
RN 728-24-5 HCAPLUS

CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)

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L4 ANSWER 507 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1961:143887 HCAPLUS  
DOCUMENT NUMBER: 55:143887  
ORIGINAL REFERENCE NO.: 55:27194i,27195a-b  
TITLE: Transformation of cyclic carbonates of  
 $\alpha$ -hydroxyacids and related compounds with  
isocyanates  
AUTHOR(S): Gulbins, K.; Roth, M.; Hamann, K.  
CORPORATE SOURCE: Forschungsinst. Pigmente Lacke, Stuttgart, Germany  
SOURCE: Angew. Chem. (1961), 73, 434  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB Compsds. of the type O.CO.A.CHR.CO (A = O, S, or NR') reacted with R''NCO  
to give NR''.CO.A.CHR.CO (R, A. catalyst, reaction temperature, % yield, and  
m.p. given): H, O, Ph, -, 120°, 50, 127°; Me, O, Ph, LiCl,  
160°, 34.4, 144°; Ph, O, Ph, LiCl, 160°, 40.3,  
112°; H, O, p-ETOCOC6H4 -, 150°, 68, 142°; H, S, Ph,  
-, 200°, 41.5, 145°; H, S, p-ETOCOC6H4, -, 160°,  
32.9, 130°; H, NPh, Ph, -, 200°, 72.5, 135°; H, NPh,  
PhCH2, -, 200°, 52.3, 192-3°. The molar ratios used were  
1:1. Tertiary amines and Li salts acted as catalysts.  
IT 3157-03-7P, Hydantoin, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 3157-03-7 HCAPLUS  
CN 2,4-Imidazolidinedione, 1,3-diphenyl- (CA INDEX NAME)

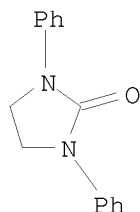


L4 ANSWER 508 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1961:112098 HCAPLUS  
DOCUMENT NUMBER: 55:112098  
ORIGINAL REFERENCE NO.: 55:21100e-g

Updated Search

10501317

TITLE: New contribution to carbene chemistry  
AUTHOR(S): Wanzlick, H. W.; Schikora, E.  
CORPORATE SOURCE: Tech. Univ., Berlin  
SOURCE: Angew. Chem. (1960), 72, 494  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
GI For diagram(s), see printed CA Issue.  
AB Under certain conditions (not described), s-dianilinoethane (I) reacted with chloral to give 1,3-diphenyl-2-trichloromethylimidazolidine, which (when heated in neutral solvents) lost  $\text{CHCl}_3$ . The crystalline product appeared to be  $\text{PhN} \cdot \text{CH}_2 \cdot \text{CH}_2 \cdot \text{NPh} \cdot \text{C} \cdot$  (a carbene) (II), which rapidly took up O from the air to give 1,3-diphenyl-2-imidazolidinone. II also took up moisture to give the monoformyl derivative of I. The mol. weight of II (actually determined) was about 300; the theoretical value for II was 222. This indicated partial dimerization and the possible equilibrium  $2\text{H} \cdot \text{dblarw} \cdot (\text{II})_2$ .  
IT 728-24-5P, 2-Imidazolidinone, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 509 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1961:93548 HCAPLUS  
DOCUMENT NUMBER: 55:93548  
ORIGINAL REFERENCE NO.: 55:17652f-h  
TITLE: 2-Oxazolidones  
INVENTOR(S): Dixon, Stanley  
PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

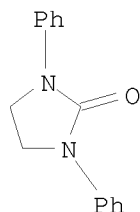
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2977371		19610328	US 1959-805668	19590413

AB 2-Oxazolidones (I) were prepared by treating epoxides with triazine trione at 150-250° 1-5 hrs. 2-Imidazolidones could be obtained as by products. Thus, 55 g. triphenyl-s-triazine-2,4,6(1H,3H,5H)-trione (from trimerization of  $\text{Ph-NCO}$  with N-methylmorpholine and phenylethylurethan catalyst) and 20 g. ethylene oxide was agitated at 230° 4 hrs. and cooled to give 64 g. 3-phenyl-2-oxazolidone, m. 119-20° (tetrahydrofuran-n-C<sub>6</sub>H<sub>14</sub>). The tetrahydrofuran-insol. residue was

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1,3-diphenyl-2-imidazolidone, m. 216°. Similarly the following were prepared: 3-(p-chlorophenyl)-2-oxazolidone, m. 119-20°; 4(or 5)-methyl-3-phenyl-2-oxazolidone, m. 81°; 3-phenyl-4(or 5)-(4-pentenyl)-2-oxazolidone, b0.15 161-63°; 3-phenyl-4,5-butylene-2-oxazolidone, b0.3 168-72°; 3-phenyl-4(or 5)-vinyl-2-oxazolidone, b3.5 171-76°, m. 87°. I were useful as solvents and plasticizers for cellulose esters and acrylic polymers.

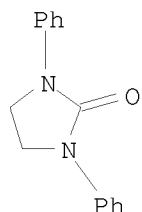
IT 728-24-5P, 2-Imidazolidinone, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 728-24-5 HCAPLUS  
CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



L4 ANSWER 510 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1961:93547 HCAPLUS  
DOCUMENT NUMBER: 55:93547  
ORIGINAL REFERENCE NO.: 55:17652e-f  
TITLE: 2-Oxazolidones  
INVENTOR(S): Oken, Aaron  
PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	US 2977370		19610328	US 1959-805670	19590413
AB	2-Oxazolidones (I) were prepared by treating epoxides with RNCO (or its dimer or a polymer with NCO at the end) at 220-50° 1-5 hrs.; 2-imidazolidones were obtained as by-products. Thus, 120 g. PhNCO and 75 g. ethylene oxide was heated at 225-30° 4 hrs. and cooled to give 109 g. 3-phenyl-2-oxazolidone, m. 116° (tetrahydrofuran-n-C6H14). Tetrahydrofuran-insol. material proved to be 1,3-diphenyl-2-imidazolidone. Similarly, the following I were prepared: 4-(or 5)-methyl-3-phenyl-2-oxazolidone, m. 81-3°; 3-ethyl-2-oxazolidone, b0.15 65-8°. I were solvents and plasticizers for cellulose esters and acrylic polymers.				
IT	728-24-5P, 2-Imidazolidinone, 1,3-diphenyl- RL: PREP (Preparation) (preparation of)				
RN	728-24-5 HCAPLUS				
CN	2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)				

Updated Search



L4 ANSWER 511 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1959:2046 HCAPLUS

DOCUMENT NUMBER: 53:2046

ORIGINAL REFERENCE NO.: 53:342c-i,343a-h

TITLE: Cyclic amidines. VII. Preparation of benzimidazoles from N'-aryl-N-hydroxyamidines

AUTHOR(S): Partridge, M. W.; Truner, H. A.

CORPORATE SOURCE: Univ. Nottingham, UK

SOURCE: Journal of the Chemical Society (1958) 2086-92

CODEN: JCSOA9; ISSN: 0368-1769

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 53:2046

AB cf. C.A. 52, 14611d. 2-Substituted benzimidazoles can be prepared by treatment of an N'-aryl-N-hydroxyamidine with PhSO<sub>2</sub>Cl (I) and a tertiary base under anhydrous conditions. A naphth[1,2]imidazole can be prepared in this way. In the presence of aqueous alkali, an N'-aryl-N-hydroxyamidine and I affords an N,N'-disubstituted urea. Equimolar amts. of 2,3-dimethylaniline, anhydrous p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H, and PhCN heated 5 hrs. at 180°, the cooled melt powdered, washed, basified with aqueous NaOH, washed, and crystallized gave 79% N-2,3-dimethylphenylbenzamidine (II), m. 130° (alc.); p-toluenesulfonate, m. 165° (aqueous alc.); picrate, m. 174-5° (alc.). The yield of II by the AlCl<sub>3</sub> method was 73%. The following amidines were similarly prepared: N-2,4-dimethylphenylbenzamidine (39%), m. 112°; yield by AlCl<sub>3</sub> method 51%; N-2,5-dimethylphenylbenzamidine (41%), m. 132°; picrate, m. 191-2°. Powdered AlCl<sub>3</sub> (27 g.) gradually stirred into a mixture of 24 g. 3,4-dimethylaniline, and 21 g. PhCN during 20 min., the mixture heated 20 min. at 180°, a solution of the product in alc. made strongly alkaline, extracted with CHCl<sub>3</sub>, washed, dried, and concentrated gave 29 g. N-3,4-dimethylphenylbenzamidine, m. 94° (ligroine). N-m-Tolylbenzamidine prepared (72%) analogously, m. 105-6° (C<sub>6</sub>H<sub>6</sub>). N-p-Methoxyphenylbenzamidine (23 g.) added to 10.4 g. H<sub>2</sub>NOH.HCl in 90 ml. H<sub>2</sub>O, the suspension refluxed 10 min., made alkaline, refluxed a further 10 min., the solid separated, and crystallized gave 10 g. N-hydroxy-N'-p-methoxyphenylbenzamidine, plates, m. 121-2° (alc.); benzoyl derivative, m. 105° (aqueous alc.). The following amidoximes were analogously prepared from the appropriate N-arylamidine and H<sub>2</sub>NOH: N-hydroxy-N'-m-tolylbenzamidine (60%), m. 138°; N'-2,3-dimethylphenyl-N-hydroxybenzamidine (83%), m. 195-6°; N'-2,4-dimethylphenyl-N-hydroxybenzamidine (IIa) (42%), m. 142°; N'-2,5-dimethylphenyl-N-hydroxybenzamidine (39%), m. 144°; N'-3,4-dimethylphenyl-N-hydroxybenzamidine (IIb) (30%), needles, m. 137-8° (ligroine) (when the foregoing compound was prepared in aqueous alc. the yield was 60%);

N-hydroxy-N'-phenyl- $\alpha$ -phenylacetamidine (IIc) (47%), m. 140-1°; N-hydroxy-N'-1-naphthylbenzamidine (IIId) (79%), m. 183° (this preparation was carried out in aqueous alc. and heating continued 2 hrs.); N-hydroxy-N'-2-naphthylbenzamidine (IIe) (41%), m. 181-2°.

N-Hydroxy-N'-phenylbenzamidine (0.025 mole) in 20 ml. C<sub>6</sub>H<sub>6</sub> and 10 ml. dry C<sub>5</sub>H<sub>5</sub>N or 10 ml. NEt<sub>3</sub> treated 0.5 hr. below 10° with 0.025 mole I in 10 ml. C<sub>6</sub>H<sub>6</sub>, kept overnight at 0-5°, the suspension filtered, the solvent removed, the residue triturated with aqueous Na<sub>2</sub>CO<sub>3</sub>, and crystallized gave

88% 2-phenylbenzimidazole (III), m. 288° (alc.). The C<sub>6</sub>H<sub>6</sub>-insol. part washed with H<sub>2</sub>O and crystallized gave 10% III benzenesulfonate, m. 262° (aqueous alc.). III p-toluenesulfonate, m. 196° (aqueous alc.). When the foregoing reaction was carried out 40 min. in refluxing C<sub>6</sub>H<sub>6</sub> the yield of III was 58%. The following compds. related to III were similarly prepared from the named N'-aryl-N-hydroxyamidine, I, and C<sub>5</sub>H<sub>5</sub>N or NEt<sub>3</sub>.

4-Methyl-2-phenylbenzimidazole (from N-hydroxy-N'-o-tolylbenzamidine) (90%), m. 251-2° (aqueous alc.); benzenesulfonate, m. 210-12° (aqueous alc.); picrate, m. 237-8° (AcOH);

5-methyl-2-phenylbenzimidazole, (1) (from N-hydroxy-N'-p-tolylbenzamidine) (63%), m. 246° (C<sub>6</sub>H<sub>6</sub>) [benzenesulfonate, m. 236-7° (alc.); picrate, m. 265° (aqueous AcOH)], (2) (from N-hydroxy-N'-m-tolylbenzamidine) (91%), m. 244°, both samples identical with a specimen prepared from the interaction of equivalent amts. of 3,4-diaminotoluene, PhCN, and PhSO<sub>3</sub>NH<sub>4</sub> 4 hrs. at 200°; 4,5-dimethyl-2-phenylbenzimidazole (from N'-2,3-dimethylphenyl-N-hydroxybenzamidine) (62%), m. 204° (C<sub>6</sub>H<sub>6</sub>-ligroine); benzenesulfonate, m. 225-6° (alc.); 4,6-dimethyl-2-phenylbenzimidazole (from IIa) (65%), m. 196° (C<sub>6</sub>H<sub>6</sub>-ligroine); benzenesulfonate, m. 177-8° (aqueous alc.); picrate m. 254° (alc.); 5,6-dimethyl-2-phenylbenzimidazole (from IIb) (36%), m. 254-5° (ligroine), identical with a specimen prepared from 4,5-dimethylphenylene-1,2-diamine, PhCN, and PhSO<sub>3</sub>NH<sub>4</sub> 4 hrs. at 200°; benzenesulfonate, m. 281-2° (alc.); picrate, m. 284° (AcOH); 5-methoxy-2-phenylbenzimidazole (from N-hydroxy-N'-4-methoxyphenylbenzamidine) (69%), m. 147° (C<sub>6</sub>H<sub>6</sub>-ligroine); picrate, m. 237° (alc.); 5-chloro-2-phenylbenzimidazole (from N'-p-chlorophenyl-N-hydroxybenzamidine) (90%), m. 210° (C<sub>6</sub>H<sub>6</sub>); benzenesulfonate, m. 242° (alc.); picrate, m. 246-8° (alc.); 2-phenylnaphth(1,2)imidazole (from IIc) (96%), m. 218° (C<sub>6</sub>H<sub>6</sub>); picrate, m. 260° (aqueous AcOH); (from IIId) (75%), m. 217-18°; 2-methylbenzimidazole (from N-hydroxy-N'-phenylacetamidine) (80%), m. 174-5°; 2-benzylbenzimidazole (from IIc) (63%), m. 188-9° (aqueous alc.).

$\alpha$ -Hydroxyiminoacetanilide (4.9 g.) suspended in 120 ml. Et<sub>2</sub>O and 6 g. NEt<sub>3</sub> treated at 5-10° with 5.3 g. I, next day the suspension collected, and the filtrate evaporated gave 2.3 g. parabanic acid, m. 136-7°, crystallized when stirred with iso-PrOH. Hydrolysis with aqueous alkali gave CO(NHPh)<sub>2</sub>, m. 238-9°.

To a suspension of the N'-aryl-N-hydroxybenzamidine (0.025 mole) in 20 ml. H<sub>2</sub>O, 0.025 mole I and 30 ml. 2N NaOH was gradually added with stirring and external cooling (exothermic reaction), stirred 3 hrs., the solid collected, washed with H<sub>2</sub>O, and crystallized from alc. The following ureas were thus prepared: N,N'-diphenyl (69%), m. 237°; N-p-chlorophenyl-N'-phenyl (72%), m. 238-9°; N-phenyl-N'-p-tolyl (57%), m. 212-13°; N-2,3-dimethylphenyl-N'-phenyl (83%), m. 189°, undepressed by a specimen prepared from PhNCO and 2,3-dimethylaniline; N-2,4-dimethylphenyl-N'-phenyl (80%), m. 242°, identical with a specimen prepared from PhNCO and 2,4-dimethylaniline and



N-2,5-dimethylphenyl-N'-phenylurea (62%), m. 234°. N-Hydroxy-N'-o-tolylbenzamidine (4.5 g.) and 1.9 g. PhNH<sub>2</sub> in 10 ml. 5N NaOH treated during 3 hrs. with 7.1 g. I and the filtrate acidified gave 1.9 g. benzenesulfonanilide, m. 112°. Basic material extracted from the residue with dilute HCl, liberated, collected in CHCl<sub>3</sub>, and recovered gave 1 g. N,N'-diphenyl-N''-o-tolylguanidine, m. 110° (alc.); nitrate, m. 174°. The nonbasic fraction on repeated crystallization gave 2.3 g. N-phenyl-N'-o-tolylurea, m. 193-4° (aqueous alc.). N,N',N''-Triphenylguanidine (7%) together with 14% N,N'-diphenylurea were produced analogously from N-hydroxy-N'-phenylbenzamidine (IV). IV (4.2 g.) with 0.5 g. Na in 30 ml. alc. treated at 10-15° with 3.5 g. I in 50 ml. alc. and the next day refluxed 0.5 hr. gave 3 g. 3,4-diphenyl-5-phenylimino-1,2,4-oxadiazoline (V), m. 159-60° (alc.). IV (4.2 g.), 4 g. diphenylcarbodiimide and 4 drops NEt<sub>3</sub> in 100 ml. anhydrous C<sub>6</sub>H<sub>6</sub> kept overnight, refluxed 0.5 hr., concentrated,

and

mixed with alc. gave 5.7 g. V. V (0.5 g.) refluxed 0.5 hr. with 7 ml. concentrated HCl gave 0.35 g. 5-oxo-3,4-diphenyl-1,2,4-oxadiazoline (VI), m. 167-8° (ligroine). IV (5.3 g.), 4.4 g. I, and 3.5 g. K<sub>2</sub>CO<sub>3</sub> refluxed 2 hrs. in 40 ml. Me<sub>2</sub>CO, the solvent removed from the filtered suspension and the tarry residue extracted with aqueous lactic acid furnished

on

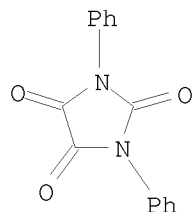
basification 0.35 g. N-phenylbenzamidine, m. 113-14°; the nonbasic tar on fractional crystallization from aqueous alc. gave 1.5 g. CO(NHPh)<sub>2</sub>, m. 236°, and 0.25 g. VI.

IT 6488-59-1P, Parabanic acid, 1,3-diphenyl-  
RL: PREP (Preparation)

(preparation of)

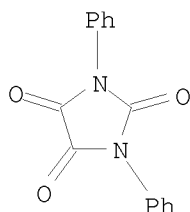
RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



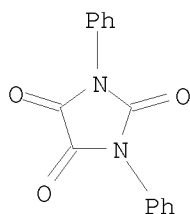
L4 ANSWER 512 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1958:61144 HCAPLUS  
 DOCUMENT NUMBER: 52:61144  
 ORIGINAL REFERENCE NO.: 52:11014h-i,11015a-d  
 TITLE: Reactions of orthoesters with aryl isocyanates  
 AUTHOR(S): Whitehead, Calvert W.; Traverso, John  
 CORPORATE SOURCE: Lilly Research Labs., Indianapolis, IN  
 SOURCE: Journal of the American Chemical Society (1958), 80, 962-5  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 52:61144

- AB Aryl isocyanates react with  $\text{HC}(\text{OEt})_3$  (I) to yield 1,3-diaryl-5,5-diethoxyhydantoin (II).  $\text{PhNCS}$  and I give 1,3-diphenyl-6-ethoxy-2,4-dithiouracil (III). The appropriate aryl isocyanate (0.5 mole) added to 50-100 cc. I, refluxed 12-24 hrs., and distilled at 9-15 mm. on the steam bath to remove the excess I, the distillation residue diluted with petr. ether and cooled, and the deposit recrystd. from EtOAc and petr. ether gave the corresponding III; the petr. ether filtrate evaporated and the residual oil distilled gave almost 100% N-arylhurethan. In this manner were prepared the following III (aryl group, % yield, and m.p. given): p- $\text{BrC}_6\text{H}_4$ , 70, 140°; o- $\text{O}_2\text{NC}_6\text{H}_4$ , 56, 188°; Ph (IV), 74, 111°; p- $\text{ClC}_6\text{H}_4$ , 85, 134°; p- $\text{PhC}_6\text{H}_4$ , 60, 140°. IV (5 g.) and 50 cc. 3N HCl refluxed 2 hrs., cooled, and filtered gave 3 g. 1,3-diphenylparabanic acid, m. 204°. 1- $\text{ClO}_2\text{H}_7\text{NCO}$  (100 g.) and 200 cc. I refluxed 12 hrs. and evaporated on the steam bath and the residue cooled gave 30 g. 1-( $\alpha,\alpha,\alpha$ -triethoxyacetyl)-1,3-dinaphthylurea (V), m. 184-5° (EtOAc). V (1 g.) in 20 cc. 50% EtOH containing 5 drops N NaOH boiled 2-5 min. and cooled gave almost 100% unchanged V. V (1 g.) in 30 cc. 50% EtOH treated with 1 drop concentrated HCl, boiled 2-5 min., and cooled gave 0.45 g.  $\alpha$ -naphthisatin (VI), rust-red needles, m. 240-5° (50 and 98% EtOH). VI (0.2 g.) in 25 cc. EtOH treated with 2 drops  $\text{PhNHNH}_2$ , concentrated, and cooled gave the phenylhydrazone of VI, light red needles, m. 268°.  $\text{PhNCS}$  (100 g.) in 200 cc. I refluxed 12 hrs., the excess I distilled at 10 mm. on the steam bath, the residual oil extracted with Et<sub>2</sub>O, and the remaining solid recrystd. from 9:1 EtOH-HCONMe<sub>2</sub> yielded 37 g. III, m. 250°.  $\text{CH}_2:\text{C}(\text{OEt})_2$  (VII) (11.6 g.) and 27 g.  $\text{PhNCS}$  kept 8 hrs. at room temperature yielded 24 g.  $\text{PhNHCSCH}:\text{C}(\text{OEt})_2$  (VIII), m. 108-9° (EtOAc). VIII (12.5 g.) and 13.5 g.  $\text{PhNCS}$  refluxed 15 min., diluted with Et<sub>2</sub>O, and refrigerated gave 3.5 g. III, m. 250°.  $\text{PhNCS}$  (27 g.) and 7.6 g. VII refluxed 3 hrs., concentrated in vacuo, and cooled yielded 3.0 g. III. VII (5.8 g.) in 25 cc. dry Et<sub>2</sub>O treated with 0.05 mole of the appropriate aryl isocyanate and kept 24 hrs. at room temperature gave the corresponding compds.  $\text{ArNHCOCH}:\text{C}(\text{OEt})_2$  (Ar, % yield, and m.p. given): 2,5- $\text{Cl}_2\text{C}_6\text{H}_3$ , 79, 141°; o- $\text{O}_2\text{NC}_6\text{H}_4$ , 88, 114°; o- $\text{MeOC}_6\text{H}_4$ , 40, 113°; m- $\text{ClC}_6\text{H}_4$ , 80, 102°; o- $\text{MeOC}_6\text{H}_4$ , 50, 113°.  $\text{PhNCO}$  (23.8 g.) and 11.6 g. VII refluxed 8 hrs., concentrated in vacuo on the steam bath, and cooled gave 2 g.  $\text{PhNHCONPhCOCH}:\text{C}(\text{OEt})_2$ , m. 148-9° (EtOAc).
- IT 6488-59-1P, Parabanic acid, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)
- RN 6488-59-1 HCAPLUS
- CN Imidazolidinetriene, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



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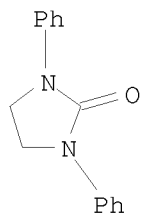
L4 ANSWER 513 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1957:52556 HCAPLUS  
DOCUMENT NUMBER: 51:52556  
ORIGINAL REFERENCE NO.: 51:9781b-d  
TITLE: Antiviral activity of glyoxals  
AUTHOR(S): de Bock, C. A.; Brug, J.; Walop, J. N.  
CORPORATE SOURCE: N. V. Philips-Roxane, Weesp, Neth.  
SOURCE: Nature (London, United Kingdom) (1957), 179, 706-7  
CODEN: NATUAS; ISSN: 0028-0836  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB cf. Vashkow and Astaf'eva, C.A. 5082h. The test compds., 0.2 ml. of 0.1M solns. or suspensions, were injected in allantoic cavities of 11-day embryonated hen's eggs, and 1 hr. later standard influenza virus, I.D.50 = 7, was injected into the allantoic fluid. A compound was considered active if the difference between the log of the hemagglutination titer of allantoic fluids from eggs injected with virus and 0.2 ml. saline and the log of the titer of the fluids from the treated eggs was >6. Active compds. and the difference in logs were: MeCOCHO 2.0, p-HOC6H4COCHO 2.0, 4,3-HO(O2N)C6H3COCHO 2.3, p-BrC6H4COCHO 0.7, and m-O2NC6H4COCHO 2.1. The virus particles lose their infective powers when incubated with low concns. (0.002M) of glyoxals. At higher concns. the glyoxals destroy the enzymic activity of the virus, and the particles acquire properties of indicator viruses. The virucidal action of the glyoxals is strong enough to explain the activity in the allantoic test.  
IT 6488-59-1, Parabanic acid, 1,3-diphenyl-  
(effect on influenza virus A')  
RN 6488-59-1 HCAPLUS  
CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 514 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1956:89229 HCAPLUS  
DOCUMENT NUMBER: 50:89229  
ORIGINAL REFERENCE NO.: 50:16796h-i,16797a-d  
TITLE: Seven-ring heterocycles. I. Synthesis and pharmacological investigation of open-chain and cyclic ethylenediamides  
AUTHOR(S): Buchi, J.; Aepli, A.; Bosshardt, R.; Eichenberger, E.  
CORPORATE SOURCE: Eidg. Tech. Hochschule, Zurich, Switz.  
SOURCE: Helvetica Chimica Acta (1956), 39, 950-7  
CODEN: HCACAV; ISSN: 0018-019X  
DOCUMENT TYPE: Journal  
LANGUAGE: German

Updated Search

- AB The hynophore group -CCONH- is present in well-known sedatives and analgesics of the barbiturate, acetamide, dioxypyrazolidine, dioxohexahydro-, and dioxotetrahydropyrimidine series. Similar pharmacol. activity was posulated for the 1,4-diaza-5,7-cycloheptanediones (I) and the N,N'-bis(dialkylacetyl)ethylenediamines (II). Anhydrous (H<sub>2</sub>NCH<sub>2</sub>)<sub>2</sub> (III) (30-1 g.), 108 g. Et<sub>2</sub>C(CO<sub>2</sub>Et)<sub>2</sub> (IV), and solid EtONa (from 23 g. Na in 350 cc. absolute alc.) refluxed 3 hrs., cooled, poured onto an equal amount of ice, acidified with 18% HCl, filtered, and the crystalline residue washed with alc. and H<sub>2</sub>O, sublimed in a high vacuum, and crystallized from dioxane yielded 16.4% 6,6-diethyl-1,4-diaza-5,7-cycloheptanedione, m. 312-13°, also produced in the presence of NaH in xylene. Similarly were prepared the corresponding 6,6-disubstituted I (substituents and m.p. given): H, Et, 338-41°; Pr<sub>2</sub> 380-1°; Bu<sub>2</sub> 390-2°; Am<sub>2</sub> 242-7°; iso-Pr, Et, 302-5°; Bu, Et, 195-7°; and Am, Et, 259-61°. IV (10.8 g.) and 3 g. 100% III heated 24 hrs. at 180° in a bomb-tube, cooled, filtered, and the crystalline residue recrystd. from alc.-petr. ether yielded 7.7% (CH<sub>2</sub>-NHCOCH<sub>2</sub>)<sub>2</sub>, m. 237-8°. I (0.4 g.) in 20 cc. pyridine added dropwise to 51 g. Pr<sub>2</sub>CHCOCl in 100 cc. pyridine with cooling, shaken vigorously 15 min., extracted with 300 cc. hot H<sub>2</sub>O, and the residue recrystd. from alc. or C<sub>6</sub>H<sub>6</sub> gave 35.1% (CH<sub>2</sub>NHCOCHPr<sub>2</sub>)<sub>2</sub>, m. 204-5°. Similarly were prepared the analogous (CH<sub>2</sub>NHCOCHRR')<sub>2</sub> (R, R', and m.p. given): Et<sub>2</sub>, 240-1°; Bu<sub>2</sub>, 212-13°; and Et, Ph, 156-7°. PhNH<sub>2</sub> (500 g.) and 132 g. (CH<sub>2</sub>Cl)<sub>2</sub> refluxed 45 min., the PhNH<sub>2</sub>.HCl washed out with 2 portions of 1 l. hot H<sub>2</sub>O, the residue extracted with warm 1:1 aqueous alc., and the extract evaporated and distilled gave 88.4 g. (CH<sub>2</sub>NHPh)<sub>2</sub> (V), m. 63°, b<sub>12</sub> 228-30°. IV (21.6 g.), 21.2 g. V, and solid EtONa (from 4.6 g. Na in 70 cc. absolute alc.) heated 22 hrs. at 140°, treated with ice H<sub>2</sub>O, acidified with 18% HCl, extracted 3 times with 100-cc. portions of Et<sub>2</sub>O, the extract washed with 2N HCl and H<sub>2</sub>O, dried, evaporated, and the residue distilled gave unchanged IV and 0.5 g. 1,3-diphenyl-2-imidazolidinone, m. 216-17° [cf. Hanssen, Ber. 20, 784(1887)], also produced by refluxing IV and V in m-xylene 16 hrs. under N. The compds. prepared showed no practical sedative or analgesic activity in tests on rabbit tooth pulp.
- IT 728-24-5P, 2-Imidazolidinone, 1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)
- RN 728-24-5 HCAPLUS
- CN 2-Imidazolidinone, 1,3-diphenyl- (CA INDEX NAME)



DOCUMENT NUMBER: 48:52883  
 ORIGINAL REFERENCE NO.: 48:9360f-i,9361a-e  
 TITLE: Reaction of amines with 3-nitroso-2-oxazolidone  
 AUTHOR(S): McKay, A. F.; Tarlton, E. J.  
 CORPORATE SOURCE: Defence Research Chem. Labs., Ottawa, Can.  
 SOURCE: Journal of the American Chemical Society (1952), 74,  
 2978-81  
 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB Throughout this abstract, R = p-anisyl and R' = p-phenetyl. The reaction of amines with 3-nitroso-2-oxazolidone (I) was studied in order to explain the mechanism of the reaction of amines with N-nitroso amides. 2-Oxazolidone (47 g.) dissolved in 75 cc. 70% HNO<sub>3</sub> and H<sub>2</sub>O, and the temperature maintained at 70° while a saturated aqueous solution of 69 g. NaNO<sub>2</sub> was added in 17 min. gave 43.1 g. (68.8%) I, m. 52-3°. I decompose spontaneously after standing 4-36 h. I (20 g.) added portionwise during 20 min. to 59.2 g. p-anisidine (II) in 50% aqueous EtOH, the temperature of the mixture

kept below 25° and the mixture left at room temperature overnight gave 32 g. of solids. These solids, after washing with Et<sub>2</sub>O and crystallizing from EtOAc, gave 11.58 g. crude (CH<sub>2</sub>NHR)<sub>2</sub> (III), m. 101-4°. The mother liquors gave 14 g. (35.7%) crude RNHCH<sub>2</sub>CH<sub>2</sub>OC(NHR)O (IV), recrystn. from EtOH gave 4.13 g., m. 123-4°. IV treated with 1 molar equivalent of RNCO (V) gave an 83.1% yield of RNHCONRCH<sub>2</sub>CH<sub>2</sub>OC(NHR)O (VI), m. 159.5-61° (EtOH). An authentic sample of VI was prepared by the reaction of RNHCH<sub>2</sub>CH<sub>2</sub>OH (VII) with 2 mol of V. III on recrystn. from EtOAc gave 8.45 g., m. 104-5°. The Et<sub>2</sub>O washings from the preparation of III gave 4.9 g. of an oily residue which was separated by fractional distillation

to give 0.5 g. II, 0.17 g. III, 0.61 g. IV, 0.06 g. CO(NHR)<sub>2</sub> (VIII), m. 242-3° and 0.21 g. NR.CO.NR.CH:CH, m. 268.5-70°. VIII was prepared from II and 1,3-dinitro-2-imidazolidone. The aqueous EtOH filtrate

and washings were acidified to decompose the carbonates and made alkaline to yield 28.1 g. of II; thus 30.58 g. of II was consumed and the yields were based on this figure. Another run of I and II was allowed to proceed to completion, the mixture acidified with 25% H<sub>2</sub>SO<sub>4</sub> and distilled, the first part of the distillate containing all of the obtainable MeCHO isolated as the 2,4-dinitrophenylhydrazone in 0.98% yield, m. 167-8° (EtOH). Addition of an amine to I gave off CO<sub>2</sub> and N which were determined quant.; when gas evoln. had ceased, the mixture was acidified with H<sub>2</sub>SO<sub>4</sub>, whereupon a trace (0.46%) of C<sub>2</sub>H<sub>2</sub> was obtained. p-Phenetidine (IX) (32.9 g.) in 50% aqueous EtOH was similarly treated with 10 g. of I to give 2.13-3.87 g. (7.2-13.06%) R'NHCH<sub>2</sub>CH<sub>2</sub>OC(NHR')O, m. 143-4°, and 6.56-7.97 g. (25.4-30.9%) (CH<sub>2</sub>NHR')<sub>2</sub> (X), m. 99-100°, as well as CO<sub>2</sub> and N. IX and (CH<sub>2</sub>Br)<sub>2</sub> (XI) gave X. (CH<sub>2</sub>OH)<sub>2</sub> (2 g.) in C<sub>6</sub>H<sub>6</sub> was refluxed 15 min. with 4.79 g. V to afford 1.91 g. (16.5%) crude [CH<sub>2</sub>OC(NHR)O]<sub>2</sub>, m. 174.8-5.2° (EtOH). The C<sub>6</sub>H<sub>6</sub> filtrate yielded 1.36 g. pure HOCH<sub>2</sub>CH<sub>2</sub>OC(NHR)O, m. 90-1°. II (50 g.) was treated with 16 g. CH<sub>2</sub>OHCH<sub>2</sub>Cl and the products distilled as described by Jacobs and Heidelberger (C.A. 9, 2074) to yield 31.5 g. of II, 22.7 g. (73.9%) VII, m. 41-3° (redistn. gave a m.p. of 43.4-4.0°), and 0.56 g. RN(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>, m. 71.5-3.0°. VII treated with excess PhNCO gave 97.5% of NHPHCONRCH<sub>2</sub>CH<sub>2</sub>OC(NHPh)O, m. 145-6.5° (EtOH). VII treated with V in C<sub>6</sub>H<sub>6</sub> afforded 51.5% VI.

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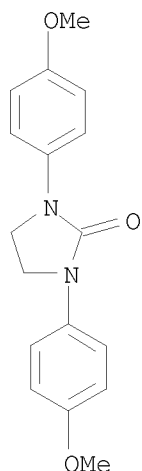
ClCH<sub>2</sub>CH<sub>2</sub>OC(NHR)O (XII) (5 g., m. 86-7°) was stirred 1 h. with a solution of 5 g. Na in 40 mL. EtOH to yield 3.1 g. (73.8%) crude 3-p-anisyl-2-oxazolidone, m. 105-6°, recrystn. from EtOH it m. 109-11°. There was also a recovery of 1 g. crude XII. There was no evidence of any vinyl N-p-anisylcarbamate being formed. II (53 g.) and 20.1 g. XI were heated on the steam bath for 0.5 h., 150 cc. H<sub>2</sub>O added and heated 18 min. longer to yield 0.65 g. (4.09%) N,N'-di-p-anisylpiperazine, m. 234-5° and 18 g. (97.9%) crude III. IX (59 g.) and 20 g. XI were similarly treated to yield 2.46 g. N,N'-di-p-phenethylpiperazine, m. 223-3.5° and 30.51 g. (95%) crude X, which, when purified, m. 98-8.5°; it did not depress the m.p. of X prepared from IX and I. A scheme was presented to explain in part the formation of the above products.

IT 5272-83-3P, 2-Imidazolidinone, 1,3-bis(p-methoxyphenyl)-

RL: PREP (Preparation)  
(preparation of)

RN 5272-83-3 HCAPLUS

CN 2-Imidazolidinone, 1,3-bis(p-methoxyphenyl)- (7CI, 8CI) (CA INDEX NAME)



L4 ANSWER 516 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1952:51937 HCAPLUS

DOCUMENT NUMBER: 46:51937

ORIGINAL REFERENCE NO.: 46:8651b-d

TITLE: Phenylhydantoins

AUTHOR(S): Holmberg, Gust. Ad.

SOURCE: Suomen Kemistiseuran Tiedonantoja (1950), 59, 25-30

CODEN: FKAMAR; ISSN: 0015-2498

DOCUMENT TYPE: Journal

LANGUAGE: English

AB DL-3,5-Diphenylhydantoin, m. 189-90°, was prepared in 83.6% yield from PhNCO and DL-PhCH(NH<sub>2</sub>)CO<sub>2</sub>H according to Ehrlich and Wendell (C.A. 2, 2568). 1,5-Diphenylhydantoin (cf. Aspelund, C.A. 35, 2143.8) was obtained in 24% yield by treating PhCH(NHPh)CO<sub>2</sub>H and HCNO, and heating the ureido acid formed with HCl to effect ring closure. 1,3,5-Triphenyl-2-thiohydantoin (I) was prepared from PhCH(NHPh)CO<sub>2</sub>H and PhCNS by heating 6

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hrs. at 130-40°, and extracting with hot EtOH. I m. 161-2° (from EtOH), is insol. in C<sub>6</sub>H<sub>6</sub> and H<sub>2</sub>O, soluble in Et<sub>2</sub>O and hot EtOH. 1,3,5-Triphenylhydantoin (II) was prepared by treating 30 g. I and 80 g. ClCH<sub>2</sub>CO<sub>2</sub>H in 150 ml. H<sub>2</sub>O 3 hrs. at 150° in sealed glass tubes, acidifying with concentrated HCl, heating on a steam bath, cooling the solidified reaction mixture extracting with Et<sub>2</sub>O, decolorizing with activated

C,

and allowing the Et<sub>2</sub>O to evaporate (yield, 17.1 g. crude II, m. 116-20°). II, recrystd. from Et<sub>2</sub>O, m. 124-6°, is insol. in C<sub>6</sub>H<sub>6</sub> and H<sub>2</sub>O, soluble in Et<sub>2</sub>O and EtOH.

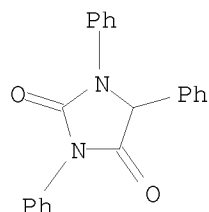
IT 61505-60-0P, Hydantoin, 1,3,5-triphenyl-

RL: PREP (Preparation)

(preparation of)

RN 61505-60-0 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3,5-triphenyl- (CA INDEX NAME)



L4 ANSWER 517 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1946:33324 HCAPLUS

DOCUMENT NUMBER: 40:33324

ORIGINAL REFERENCE NO.: 40:6467i,6468a-i,6469a-b

TITLE: Investigation of some colored iminazolidines derived from theobromine

AUTHOR(S): Todd, A. R.; Whittaker, N.

CORPORATE SOURCE: Univ. Cambridge, UK

SOURCE: Journal of the Chemical Society (1946) 628-33

CODEN: JCSOA9; ISSN: 0368-1769

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB Theobromine in boiling CHCl<sub>3</sub>, treated with Cl until evolution of HCl ceases, gives 85%  $\gamma$ -methyl- $\gamma$ -(2,4,5,5-tetrachloro-1-methyl-2-imidazolin-4-yl)allophanyl chloride (I), m. 136° (decomposition) (Biltz, C.A. 29, 1394.4); CHCl:CCl<sub>2</sub> can be used for the preparation of I (75%, contains solvent of crystallization) but CCl<sub>4</sub> is not a satisfactory medium. I with NH<sub>3</sub> gives only resinous products. I (30 g.) in 500 cc. benzene, treated during 2 min. with 53 g. PhNH<sub>2</sub> (mol. ratio of 1:9) in 100 cc. benzene at room temperature, then refluxed for 30 min., gives first 36 g. of a mixture of PhNH<sub>2</sub>.HCl and MeNH<sub>2</sub>.HCl as a precipitate in the reaction mixture;

concentration of the

filtrate to 150 cc. gives 11 g. 1,5-diphenylbiuret (II); the residue from the mother liquor, crystallized from EtOH, gives 5.5 g. 2-imino-4,5-bis(phenylimino)-3-phenyl-1-methylimidazolidine (III),

PhN.C(:NH).NMe.C(:NPh).C(:NPh), yellow, m. 153-4°; III gives a red

solution in cold EtOH-HCl, from which it is precipitated unchanged on dilution

with

H<sub>2</sub>O; on catalytic hydrogenation, III takes up 2.8 mols. H to give an unstable colorless product. I (8 g.) and 18 g. PhNH<sub>2</sub> (mol. ratio of 1:11) give 2.5 g. II and 2.7 g. 2-imino-4,5-bis(phenylimino)-1,3-diphenylimidazolidine (IV), yellow, m. 177-8°. Variations in the proportions of I and PhNH<sub>2</sub> between the 2 values used gives mixts. of approx. equal quantities of III and IV, as did the slower addition of the PhNH<sub>2</sub> (10 min. or more). III and IV possess similar solubilities and show similar behavior on chromatog. anal., so that the separation of approx. equal quantities of III and IV is very tedious. I (30 g.) and 60 g. p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (mol. ratio of 1:9) give 6.8 g. 2-imino-4,5-bis(p-tolylimino)-3-p-tolyl-1-methylimidazolidine (V), yellow, m. 169°, and 2.6 g. 2-imino-4,5-bis(p-tolylimino)-1,3-di-p-tolylimidazolidine (VI), yellow, m. 178-9°; 20 g. I and 45 g. p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (mol. ratio of 1:10) give 7 g. VI and very little V. I (15 g.) and 55 g. p-BrC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> give 4.2 g. 2-imino-4,5-bis(p-bromophenylimino)-3-(p-bromophenyl)-1-methylimidazolidine (VII), orange, m. 261-2°; the compound corresponding to IV or VI was not formed. Hydrolysis of 1 g. III with 20 cc. EtOH and 4 cc. concentrated HCl at 60° gives 2-imino-4 (or 5)-phenylamino-5 (or 4)-keto-3-phenyl-1-methylimidazolidine, pale yellow, m. 203°; refluxed with alc. HCl, this yields 1-phenyl-3-methylparabanic acid (VIII), m. 210°; VII was synthesized by condensation of PhNHCONH<sub>2</sub> and (CO<sub>2</sub>Et)<sub>2</sub> with EtONa and reaction of the resulting Na salt with MeI [Andreasch (Ber. 31, 138 (1898)) reported the m.p. of 148° for a compound stated to be VIII (prepared from 1-phenyl-3-methyl-2-thioparabanic acid); the nature of this compound is not clear]. VIII results directly on refluxing 0.5 g. of III with 2 cc. concentrated HCl in 20 cc. EtOH for 30 min. Similarly, V yields 1-p-tolyl-3-methylparabanic acid (IX), m. 202° (the intermediate pale yellow compound, C<sub>18</sub>H<sub>18</sub>ON<sub>4</sub>, m. 235°); IX was synthesized as above in 90% yield. VII yields 1-(p-bromophenyl)-3-methylparabanic acid, m. 255°. III (0.5 g.), 0.25 g. PhNH<sub>2</sub>.HCl, and 10 cc. EtOH, refluxed 6 h., give 0.2 g. IV; this reaction does not occur in benzene. Similarly, V was transformed into VI by heating with p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>.HCl in EtOH or without solvent at 160° for 10 min. VI (0.5 g.), 10 cc. concentrated HCl, and 10 cc. H<sub>2</sub>O, refluxed 1 h., give 2-imino-4-p-tolylimino-5-keto-1,3-di-p-tolylimidazolidine, yellow, m. 249-50°; 0.5 g. VI, 3 cc. concentrated HCl, and 20 cc. EtOH, heated in a sealed tube at 100° for 1 h., yield 1,3-di-p-tolylparabanic acid, m. 135-6°; 1 g. VI, 4 cc. concentrated HCl, and 30 cc. EtOH, refluxed 15 min., give 1,3-di-p-tolylguanidine, m. 166-7°. VI (1 g.), 0.45 g. m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>.HCl, and 25 cc. EtOH, refluxed 20 min., give a yellow compound, C<sub>24</sub>H<sub>22</sub>O<sub>2</sub>N<sub>6</sub>, m. 225-7°, and p-MeC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>; since this yields IX on hydrolysis, it is probable that a p-MeC<sub>6</sub>H<sub>4</sub>NH group at C<sub>4</sub> or C<sub>5</sub> (which, is not known) is replaced by a p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH group; m-HOC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>.HCl similarly gives a yellow compound, C<sub>24</sub>H<sub>23</sub>ON<sub>5</sub>, m. 253-4°; this also gives IX on hydrolysis. Before the structure of III was established, it was thought that it might be 2,4,5-tris(phenylimino)-1-methylimidazolidine and the following projected steps in its synthesis were carried out. (H<sub>2</sub>NC:NPh)<sub>2</sub> (X) (2 g.) and 6 cc. ClCO<sub>2</sub>Et, refluxed 15 min., give 0.6 g. N',N',N'',N'''-tetracarbethoxy-N,N'''-diphenyloxalamidine, m. 144°; in dry C<sub>5</sub>H<sub>5</sub>N at room temperature for 3 h., the product was N',N''-dicarbethoxy-N,N'''-diphenyloxalamidine (XI), m. 230-1°. X (55 g.) in 500 cc. dry C<sub>5</sub>H<sub>5</sub>N, treated during 10 min. with 25 g. ClCO<sub>2</sub>Et and the mixture allowed to stand 3 days at room temperature, gives 1.8 g. XI (separated by extraction with EtOH), and 2.7 g. 4,5-bis(phenylimino)-2-ketoimidazolidine (XII), pale yellow, m.



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284° (decomposition). XII (0.55 g.) with 1 g. MeI in MeONa-MeOH (refluxed 30 min.) gives 0.15 g. of the corresponding 1-Me derivative (XIII), yellow, m. 183°, and 0.07 g. of the 1,3-di-Me derivative, yellow, m. 177° (separated by chromatog. adsorption on activated Al<sub>2</sub>O<sub>3</sub> and elution with CHCl<sub>3</sub> containing 1% EtOH). XIII reacted smoothly with POCl<sub>3</sub> but the synthesis was not carried further.

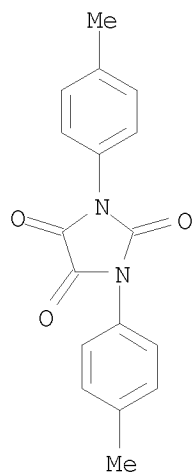
IT 82146-59-6P, Parabanic acid, 1,3-di-p-tolyl-

RL: PREP (Preparation)

(preparation of)

RN 82146-59-6 HCAPLUS

CN Imidazolidinetrione, bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 518 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1937:53435 HCAPLUS

DOCUMENT NUMBER: 31:53435

ORIGINAL REFERENCE NO.: 31:7422c-i,7423a-d

TITLE: Nitrogen heterocycles. XXIX. Derivatives of m- and p-phenylenediamines and of 5-aminooxindole

AUTHOR(S): Ruggli, Paul; Grand, Richard

SOURCE: Helvetica Chimica Acta (1937), 20, 373-86

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB cf. C. A. 31, 4288.1. The synthesis of benzodipyrroles by ring closure of phenylenediamines with  $\beta$ -CO groups takes place smoothly. The tendency to ring closure of similar N-substituted phenylenediamines has been investigated although the lack of such indole derivs. suggests the difficult nature of the reaction. A mol. mixture of 20 g. m-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (I) and 44 g. BrCH(CO<sub>2</sub>Et)<sub>2</sub> (II) was triturated. After 2 days the solid was washed with 200 cc. H<sub>2</sub>O and 100. cc. of 10% HCl and dried, yielding 25 g. (65%) of crude product. Recrystn. from hot alc. gave white, felted needles of m-phenylenebis(aminomalonic ester) (III), C<sub>20</sub>H<sub>28</sub>N<sub>2</sub>O<sub>8</sub>, m. 79°. The corresponding p-compound, m. 108°, was similarly prepared. Benzidine and II produced benzidinebis(malonic ester), C<sub>26</sub>H<sub>32</sub>N<sub>2</sub>O<sub>8</sub>, m. 134°. On heating at 210° for 25 min. 10 g. III was

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converted into a brown melt with evolution of EtOH. The cooled melt was boiled with 40 cc. Ac<sub>2</sub>O and 4 g. anhydrous NaOAc for 9 hrs. and then poured into 160 cc. H<sub>2</sub>O. Treatment of the resulting oil with 35 cc. alc. and recrystn. yielded 0.7 g. of 2,6-dicarbethoxy-3,5-diacetoxybenzodipyrrole, C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>8</sub>, m. 180°. Analogous ring closure expts. with the p-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub> and benzidine compds. gave only amorphous substances. Attempts to effect ring closure by heating 2 g. anilidomalonic ester with 2 g. PhNCO at 145° and treatment of the cooled product with benzene gave 1,3-diphenyl-2,5-diketo-4-carbethoxy-tetrahydroimidazole, C<sub>18</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub>, m. 134.5°. Attempts to convert p-C<sub>6</sub>H<sub>4</sub>(NHCH<sub>2</sub>CO<sub>2</sub>H)<sub>2</sub> into the acid chloride and to effect ring closure by heating with AlCl<sub>3</sub> gave difficultly soluble products as a result of a polymerization reaction. I (4 g.) in a mixture of 80 cc. Et<sub>2</sub>O and 20 cc. alc. was added to 7.4 g. BrCH<sub>2</sub>Bz in 25 cc. alc. The crystalline product (8.1 g.) was filtered off and washed with dilute HCl. The residue (5 g.) was suspended in 100 cc. of hot alc. and taken into solution by the addition of 20 cc. pyridine. Crystallization gave 0.8 g. of bright

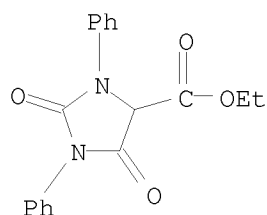
yellow diphenacyl-m-phenylenediamine, C<sub>22</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>, m. about 164°. Similarly m-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> and BrCH<sub>2</sub>Bz, gave phenacyl-m-nitroaniline, C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub>, m. 168°, with which no ring closure could be brought about. A mixture of 4 g. of p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, 4 g. Na<sub>2</sub>CO<sub>3</sub> and 8 g. BrCH<sub>2</sub>Bz in 50 cc. alc. was heated at 55-60° for 15 min. and for a few min. at 70°. The cooled mixture was filtered and the dried residue was boiled with 25 cc. of 10% HCl in 125 cc. H<sub>2</sub>O. Recrystn. of the insol. residue gave 0.45 g. of diphenacyl-p-phenylenediamine, C<sub>22</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>, m. about 151°; picrate, m. 124°; di-Ac derivative, m. 227°. Attempts at ring closure with acid media were unsuccessful. Condensation of BrCH<sub>2</sub>Bz with p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHAc yielded 82% of p-acetamidophenacylaniline, C<sub>16</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>, m. 173°, which, on heating with p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHAc.HCl for 10 min. at 170-5°, gave by ring closure 5-acetamidophenylindole, C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>O, m. 217°. As a cyclic acetylated m-phenylenediamine, reactions with 6-aminooxindole (IV) were studied. The reduction of 16 g. of 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CH<sub>2</sub>CO<sub>2</sub>Et in 100 cc. alc., 100 cc. AcOEt and 20 cc. H<sub>2</sub>O in the presence of Ni gave 6 g. of Et 2,4-diaminophenylacetate (V), C<sub>10</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub>, m. 75°; di-Ac derivative, m. 190°; di-Bz derivative, m. 161°; picrate, m. 165-215° (decomposition). The filtered reduction solution of V from 100 g. of nitro compound was decomposed with HCl

and

evaporated stepwise under reduced pressure at 40-50°, yielding 78% (56 g.) of the HCl salt of IV, neutralized with NH<sub>4</sub>OH to IV, C<sub>8</sub>H<sub>8</sub>N<sub>2</sub>O, m. about 200° (decomposition); toluylsulfo derivative, C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>O<sub>3</sub>S, m. 228-9°, methylated to the N,O-di-Me (VI) and N-Me derivs., C<sub>17</sub>H<sub>18</sub>N<sub>2</sub>O<sub>3</sub>S and C<sub>16</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub>S, m. 203° and 253° resp. Heating with 11.5 cc. of 80% H<sub>2</sub>SO<sub>4</sub> for 20 min. at 135-50° converted 5 g. VI into a crystalline sulfate which on neutralizing with 10% NaOH gave 2 g. (74%) of N,O-dimethyl-6-aminooxindole, C<sub>10</sub>H<sub>12</sub>N<sub>2</sub>O, m. 165-6°; nitroso derivative, m. 137°, which could not be reduced to give the desired methylhydrazine derivative. Treatment of a suspension of 8.5 g. IV in 100 cc. dioxane and 60 cc. Et<sub>2</sub>O with 2.2 cc. ClCH<sub>2</sub>COCl in 20 cc. Et<sub>2</sub>O produced 2 g. of chloroacetyl-6-aminooxindole (VII), C<sub>10</sub>H<sub>9</sub>ClN<sub>2</sub>O<sub>2</sub>, which, on heating with AlCl<sub>3</sub> in CS<sub>2</sub> did not yield the expected double oxindole. VII was converted into the corresponding 6-acetamidooxindole, C<sub>10</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub>, m. above 335° (decomposition), which was nitrated to the 5-nitro derivative, C<sub>10</sub>H<sub>9</sub>N<sub>3</sub>O<sub>4</sub>, m. 250-300° (decomposition). Reduction, saponification and the action of HCO<sub>2</sub>H or AcOH failed to give a definite compound predicted on the basis of ring closure with the formation of an imidazole nucleus.

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IT 56598-97-1P, 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester  
RL: PREP (Preparation)  
(preparation of)  
RN 56598-97-1 HCAPLUS  
CN 4-Imidazolidinecarboxylic acid, 2,5-dioxo-1,3-diphenyl-, ethyl ester (CA INDEX NAME)

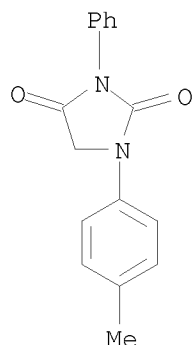


L4 ANSWER 519 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1934:6035 HCAPLUS  
DOCUMENT NUMBER: 28:6035  
ORIGINAL REFERENCE NO.: 28:770i,771a-f  
TITLE: Synthesis of heterocyclic compounds by means of isothiourea ethers  
AUTHOR(S): Deck, J. F.; Dains, F. B.  
SOURCE: Journal of the American Chemical Society (1933), 55, 4986-91  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB The following Me isothiourea ethers were prepared: di-p-bromodiphenyl, m. 129°; m-nitrodiphenyl, m. 87-9°; di-m-tolyl, m. 97.5°; monobromodiphenyl, m. 79-80°; thiomethyl ether of methylphenylurea (I), m. 58-9° (perchlorate, m. 114°). Me salicylate and the diphenyl thioether, heated at 180°, give 2-phenylimino-3-phenyl-1,3,4-benzoxazin-4-one, m. 157-8°; salol gives a 68% yield; 2-o-tolylimino-3-o-tolyl derivative (I), m. 114°; refluxing with concentrated HCl and EtOH for 4 hrs. gives 3-o-tolyl-1,3,4-benzoxazine-2,4-dione, m. 129-30°; the p-isomers m. 163-4° and 221°. 2-Phenylimino-3-p-bromophenyl-1,3,4-benzoxazin-4-one, m. 135-6°; hydrolysis with dilute acid gives PhNH<sub>2</sub> and 3-p-bromophenyl-1,3,4-benzoxazin-2,4-dione, m. 214°. o-HOC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>Ph and I give 2-phenylimino-1,3,4-benzoxazin-4-one, m. 189°; boiling 40% H<sub>2</sub>SO<sub>4</sub> gives 1,3,4-benzoxazine-2,4-dione. o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H and Me isodiphenylthiourea, fused at 170-80° or heated in C<sub>6</sub>H<sub>4</sub>Me<sub>2</sub>, give 2-phenylimino-3-phenyl-4-ketotetrahydroquinazoline, m. 163°, and 3-phenyl-2,4-diketotetrahydroquinazoline, m. 271°. o-Me-NHC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H gives 1-methyl-2,4-diketo-3-phenylquinazoline. 2-p-Tolylimino-3-p-tolyl-4-ketotetrahydroquinazoline, m. 149°; 3-p-tolyl-2,4-diketotetrahydroquinazoline, m. 273°; 1-methyl-2-keto-3-p-tolyl-4-ketotetrahydroquinazoline, m. 190°; 2-o-tolylimino-3-o-tolyl-4-ketotetrahydroquinazoline, m. 157-9°. o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H and the Me ether of monophenylthiourea give a mixture, which could not be separated o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub> and Me isodiphenylthiourea give 2-anilinobenzimidazole, m.

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188°; 2-p-tolylaminobenzimidazole, m. 207°; 2-o-isomer, m. 182°. o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>OH and Me pseudodiphenylthiourea, heated 2 hrs. at 170°, give 1-anilinobenzoxazole, m. 170°; 1-p-tolylamino derivative, m. 178°; m-isomer, m. 146°; 4-chloro-1-phenylamino derivative (II), m. 199°; 4-chloro-1-p-tolylamino derivative, m. 204.5°; 4-nitro-1-phenylamino derivative, m. 235°; 4-nitro-1-p-tolylamino derivative, m. 222-4°; o-isomer, m. 173-4°; m-isomer, m. 207°. II, EtOH and CS<sub>2</sub>, refluxed 36 hrs., give 4-chloro-1-mercaptobenzoxazole, m. 262°; 4-NO<sub>2</sub> derivative, m. 235-8°. PhNHCH<sub>2</sub>CO<sub>2</sub>Et and I give 1,3-diphenyl-2-phenylimino-5-imidazolone, m. 150-1° (4-m-nitrobenzal derivative, yellow, m. 170°). 1-Phenyl-2-p-tolylimino-3-p-tolyl-5-imidazolone (III), m. 158°; 1-p-tolyl-2-keto-3-phenyl-5-imidazolone, m. 153°; m-nitrobenzal derivative of III, m. 156°; 1-o-tolyl-2-o-tolylimino-3-phenyl-5-imidazolone, m. 130°; 1-o-tolyl-2-keto-3-phenyl-5-imidazolone, m. 126°; 1-phenyl-2-phenylimino-3-p-tolyl-5-imidazolone, m. 126° (4-m-nitrobenzal derivative, m. 176°); 1-phenyl-2-keto-3-p-tolyl-5-imidazolone, m. 155°.

IT 15355-74-5P, Hydantoin, 3-phenyl-1-p-tolyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 15355-74-5 HCAPLUS  
CN Hydantoin, 3-phenyl-1-p-tolyl- (8CI) (CA INDEX NAME)



L4 ANSWER 520 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1928:21977 HCAPLUS

DOCUMENT NUMBER: 22:21977

ORIGINAL REFERENCE NO.: 22:2552b-e

TITLE: The reactivity of o-diketonic groups placed between two nitrogen atoms

AUTHOR(S): De, P. K.; Sircar, A. C.

SOURCE: Quart. J. Indian Chem. Soc. (1927), 4, 531-4

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

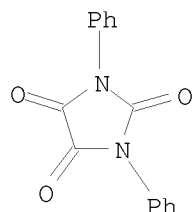
AB This investigation was intended for the preparation of azine derivs. by the condensation of diphenylthioparabanic acid with o-diamines:  
SCNPh.CO-NPh.CO- I + o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub> → + SCNPh.C:N-NPh.C:N- C<sub>6</sub>H<sub>4</sub> + 2H<sub>2</sub>O. But both o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub> and 1,2-C<sub>10</sub>H<sub>6</sub>(NH<sub>2</sub>)<sub>2</sub> gave condensation products containing no S. It is evident that o-diketo groups placed between N

atoms behave quite differently than those placed between two C atoms, as in phenanthraquinone. The search was then made to cover other o-diketo compds.: dinitrodiphenylthioparabanic acid, diphenylparabanic acid, N,N-diphenyl- $\alpha,\beta$ -diketopiperazine and dimethyloxanilide. None of these yields an azine. The parabanic acids behave similarly toward the o-diamines; while the other 2 compds. do not react with them. The reaction with I probably proceeds as follows:  $I + C_6H_4(NH_2)_2 = C_6H_4NH.CO-NH.CO-II + SC(NHPh)_2$ ;  $SC(NHPh)_2 + C_6H_4(NH_2)_2 = SC(NH)_2C_6H_4 (IV) + PhNH_2$ . II and  $PhNH_2$  were identified in the reaction mixture and that the 2nd part of the reaction can occur was proved by a blank experiment. In the case of diphenylparabanic acid, the 2nd reaction does not take place; both II, does not m.  $300^\circ$ , and  $OC(NHPh)_2$ , m.  $238^\circ$ , were isolated and no  $PhNH_2$  could be detected. IV, soluble in alkalies and insol. in acids, m,  $294-7^\circ$ .

IT 6488-59-1, Parabanic acid, 1,3-diphenyl-  
(reaction with o-diamines)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrioxone, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 521 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1925:4554 HCAPLUS

DOCUMENT NUMBER: 19:4554

ORIGINAL REFERENCE NO.: 19:637e-g

TITLE: Hydantoins. XLII. A method of synthesizing  
1,5-diarylhydantoins. 1,5-Di-[p-  
hydroxyphenyl]hydantoin

AUTHOR(S): Coghill, R. D.

SOURCE: Journal of the American Chemical Society (1925), 47,  
216-21

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

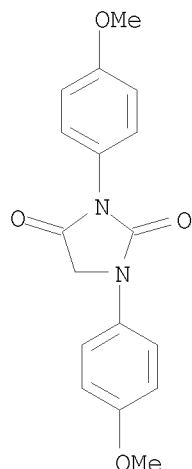
OTHER SOURCE(S): CASREACT 19:4554

AB  $MeOC_6H_4CH(OH)CN$  and  $p-MeOC_6H_4NH_2$  in EtOH give a mixture of about equal parts of p-anisalanisidine (I), m.  $146^\circ$ , and [p-methoxyphenylamino]methoxyphenylacetonitrile (II), m.  $90^\circ$ , separated by crystallization from 95% EtOH. In  $C_6H_6$ , a quant. yield of I was obtained. Heating  $MeOC_6H_4CHO$  and  $MeOC_6H_4NH_2$  in the presence of a large excess of HCN (NaCN and HCl) gives an almost quant. yield of II. II is completely decomposed by HCl and  $H_2SO_4$ .  $H_2O_2$  at  $40-60^\circ$  gives I. HCNO (KCNO in glacial AcOH) gives 87% of the corresponding urea,  $H_2NCON(C_6H_4OMe)CH(C_6H_4OMe)CN$ , m.  $131^\circ$ , which is transformed by heating with 1:4 HCl into 1,5-di-[p-methoxyphenyl]hydantoin, m.  $190^\circ$ ; HBr in glacial AcOH gives the 1,5-di-HO derivative, m.

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160°. Seven of the phenolhydantoin were tested for comparative antiseptic strength; in no case was a value found comparable with the antiseptic strength of PhOH. Most of the combinations are too little soluble in H<sub>2</sub>O to be of any value as antiseptic principles.

IT 783344-28-5P, Hydantoin, 1,3-di-p-anisyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 783344-28-5 HCAPLUS  
CN Hydantoin, 1,3-di-p-anisyl- (2CI) (CA INDEX NAME)



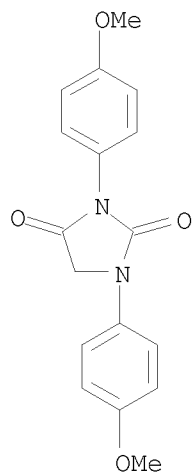
L4 ANSWER 522 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1925:4553 HCAPLUS  
DOCUMENT NUMBER: 19:4553  
ORIGINAL REFERENCE NO.: 19:637b-e  
TITLE: Hydantoin. XLI. The synthesis of hydantoin  
containing phenolic groups in the glyoxaline nucleus  
AUTHOR(S): Coghill, R. D.; Johnson, T. B.  
SOURCE: Journal of the American Chemical Society (1925), 47,  
184-93  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
OTHER SOURCE(S): CASREACT 19:4553  
AB cf. C. A. 11, 2088; 16, 3307; 17, 2106. -3-p-Hydroxyphenylhydantoin, m.  
267°, in 90% yield by heating the Me ether with HBr in glacial AcOH  
under pressure 1 h. at 100°, gives a strong color reaction with  
Millon reagent. EtOC<sub>6</sub>H<sub>4</sub>NCS and H<sub>2</sub>NCH<sub>2</sub>CO<sub>2</sub>Et in EtOH-KOH give the stable  
form of 3-p-ethoxy-2-thiohydantoin, plates, m. 197°; from  
HCl.H<sub>2</sub>NCH<sub>2</sub>CO<sub>2</sub>Et and concentrated aqueous KOH, there results the K salt of  
3-p-ethoxyphenylthiohydantoic acid (m. 128°, decomposition) which yields  
with boiling HCl the labile form, Au-yellow, m. 197°, transformed  
into the stable form by boiling 1 h. with EtOH-HCl. 3-p-  
Ethoxyphenylhydantoin, m. 203° (70% yield); attempts to split off  
the Et group by HBr-AcOH were unsuccessful. 3-p-Nitrophenylthiohydantoin,  
yellow, decomp. 170-2°; about 50% yield. p-MeOC<sub>6</sub>H<sub>4</sub>NHCH<sub>2</sub>CO<sub>2</sub>H

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(Vater, J. prakt. Chemical 29, 294(1884)), needles, m. 146°. p-Methoxyphenylurea, m. 168°, does not react with ClCH<sub>2</sub>CO<sub>2</sub>H or ClCH<sub>2</sub>COC1 at 100°. 1-p-Hydroxyphenylhydantoin, prisms which do not m. at 280° but decompose slightly. p-MeOC<sub>6</sub>H<sub>4</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H and NH<sub>4</sub>CNS in AcOH-Ac<sub>2</sub>O give 70% of the 1-Ac derivative, m. 165°, of 5-p-methoxyphenyl-2-thiohydantoin, turns red at 130°, m. 200-10° (decomposition). With ClCH<sub>2</sub>CO<sub>2</sub>H this gives the hydantoin which with HBr in AcOH gives 70% of 5-p-hydroxyphenylhydantoin, m. 262°. p-MeOC<sub>6</sub>H<sub>4</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H and p-MeOC<sub>6</sub>H<sub>4</sub>SCN at 140-60° for 2 h. give 80-95% of 1,3-di-[p-methoxyphenyl]-2-thiohydantoin, m. 185°; the corresponding hydantoin, m. 157°, results in 70% yield and with HBr-AcOH gives 60% of 1,3-di-[p-hydroxyphenyl]hydantoin, m. 242°. The 5,5-di-[p-hydroxyphenyl]hydantoin, needles, does not m. below 280°. 3,5-Di-[p-methoxyphenyl]-2-thiohydantoin, m. 193°; 95% yield. The hydantoin, m. 170° (45% yield), gave, with HBr-AcOH an impure 3,5-di-[p-hydroxyphenyl]hydantoin, amorphous and without sharp m. p. The antiseptic properties of these various compds. will be reported later.

IT 783344-28-5P, Hydantoin, 1,3-di-p-anisyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 783344-28-5 HCAPLUS  
CN Hydantoin, 1,3-di-p-anisyl- (2CI) (CA INDEX NAME)



L4 ANSWER 523 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1916:962 HCAPLUS  
DOCUMENT NUMBER: 10:962  
ORIGINAL REFERENCE NO.: 10:189g-i,190a-i,191a-i,192a  
TITLE: The action of oxalyl chloride with some amides  
AUTHOR(S): Figee, Th.  
CORPORATE SOURCE: Univ. Leyden  
SOURCE: Recueil des Travaux Chimiques des Pays-Bas et de la  
Belgique (1915), 34, 289-325  
CODEN: RTCPB4; ISSN: 0370-7539  
DOCUMENT TYPE: Journal

Updated Search

LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB Bornwater (C. A. 6, 2743) studied the action of  $(\text{COCl})_2$  on  $\text{AcNH}_2$ ,  $\text{ClCH}_2\text{CONH}_2$  and  $\text{BzNH}_2$  and found that in boiling  $\text{C}_6\text{H}_6$  they gave carbonyl derivs., while substituted amines like  $\text{AcNH}_2$  and  $\text{BzNH}_2$  give oxalic derivs. Similarly treated  $\text{NH}_2\text{CO}_2\text{Et}$  gives  $\text{CO}(\text{NHCO}_2\text{Et})_2$ , while its Me derivative gives  $(\text{CONMeCO}_2\text{Et})_2$ .  $\text{NH}_2\text{CONMe}_2$  gives the CO derivative, while  $(\text{MeNH})_2\text{CO}$

gives the cyclic oxalic derivative  $(\text{MeNHCO})_2$  also gives the cyclic oxalic derivative Moll v. Charante (C. A. 7, 1704) obtained the oxalyl derivative with

$\text{PhSO}_2\text{NH}_2$  while Franchimont (Kon. Acad. Wet. 22, 285) obtained  $\text{EtSO}_2\text{NHMe}$  with  $\text{EtSO}_2\text{NH}_2$ .  $\text{Me}_2\text{CHCONH}_2$ , however, decomps. partly in  $\text{H}_2\text{O}$  into a nitrile in forming the oxalic derivative But in working in  $\text{Et}_2\text{O}$  solution B. found that  $\text{CO}(\text{NH}_2)_2 + (\text{COCl})_2$  give parabamic acid, i. e., a cyclic oxalic derivative and another cyclic product, oxalyldiureide. Stoll. act. e (C. A. 8, 708) obtained diphenyloxamic chloride and tetraphenyloxamide from  $\text{Ph}_2\text{NH} + (\text{COCl})_2$ , depending on whether 1 or 2 mols. of  $\text{Ph}_2\text{NH}$  were used. B. always used excess of the amine in order to obtain the oxalic derivs. and it seemed if only 1 mol. of amine was used with 1 mol.  $(\text{COCl})_2$  the chlorides like that found by S. would be obtained unless they underwent intramol. rearrangement. Some examples of the latter are cited from Folpmer's data (C. A. 9, 1785). The expts. of B. were continued with  $\text{PrNH}_2$  and  $\text{PhCH}_2\text{CONH}_2$  partly to determine whether Ph in place of Me has a different effect. As substituted amides  $\text{AcNHPh}$ ,  $\text{PrNHPh}$  and  $\text{PhCH}_2\text{CONHPh}$  were used for the same reason. Moreover,  $\text{PhNHCO}_2\text{Et}$ ,  $\text{CO}(\text{NHPh})_2$  and  $(\text{CONHPh})_2$  were used in place of the corresponding Me derivs. used by B. As homologs of  $\text{PhNHCO}_2\text{Et}$  F. has studied  $\text{PhNHCH}_2\text{CO}_2\text{Et}$ , and  $\text{H}_2\text{NCHPh}_2\text{CO}_2\text{Me}$  (Meyeringh, Rec. trav. chim. 32, 152.)  $\text{H}_2\text{NCONHPh}$ ,  $(\text{CH}_2\text{NHCO}_2\text{Et})_2$  and  $(\text{CH}_2\text{NHAc})_2$  were also used. Com.  $\text{PrNH}_2$  was recrystd. in dry  $\text{C}_6\text{H}_6$  instead of the usual  $\text{CHCl}_3$  and was obtained as shining, nonhygroscopic leaves, m.  $79-80^\circ$ ; 2 mols. boiled under a reflux condenser with 1 mol.  $(\text{COCl})_2$  in dry  $\text{C}_6\text{H}_6$  for 6 hrs. gave much  $\text{HCl}$  and separated a slightly brown compound on cooling. This boiled with  $\text{EtOH}$  became white and was recrystd. from  $\text{PhNO}_2$  as mica-like scales of oxalyldi-[propionamide],  $(\text{CONHPr})_2$  (a), m.  $216^\circ$  (decomposition); yield 10%. 0.050 g. was boiled 0.30 hr. with 10%  $\text{KOH}$  under a reflux condenser, acidified with  $\text{AcOH}$ , treated with  $\text{CaCl}_2$  soln. to precipitate  $\text{CaC}_2\text{O}_4$ . (a) does

not give the biuret reaction.  $\text{EtCN}$  was also formed which shows that  $(\text{COCl})_2$  has a dehydrating action on  $\text{PrNH}_2$  as was found by F. (l. c.) in the case of isobutyramide. The mother liquor on evaporation gave a yellow tar from which some (a) was separated in  $\text{EtOH}$  solution and some unchanged  $\text{PrNH}_2$  from

petr, ether solution 1 mol.  $(\text{COCl})_2 + 2$  mol.  $\text{PhCH}_2\text{CONH}_2$  (b) treated as with (a) separated a yellow powder which on crystallization from  $\text{EtOH}$  was found to be unchanged

(b). The filtrate was evaporated and the residue recrystd. from boiling  $\text{H}_2\text{O} + \text{EtOH}$ , from which carbonyldi[phenylacetamide] (c),  $\text{CO}(\text{NHCOCH}_2\text{Ph})_2$ , separated as silvery plates, m.  $114-6^\circ$ , did not give  $\text{H}_2\text{C}_2\text{O}_4$  on hydrolysis; it was noted that the introduction of 2 Ph groups in  $\text{CO}(\text{NHAc})_2$  lowers the m. P. 2 mols.  $\text{PhNHAc} + 1$  mol.  $(\text{COCl})_2$  treated similarly seps. a little of a red compound; the filtrate gives a brown viscous syrup on evaporation, which crystallized from absolute  $\text{EtOH}$ , gave oxalyldi[acetanilide],  $(\text{CONPhAc})_2$  (d), colorless needles, m.  $208-9^\circ$ , gives  $\text{H}_2\text{C}_2\text{O}_4$  on hydrolysis; a small amount of a yellow product, m.  $190-208^\circ$ , was also formed. 2 mols.  $\text{PhNH}_2 + 1$  mol.  $\text{PrCl}$  in dry  $\text{Et}_2\text{O}$  gave  $\text{PhNHPr}$  which was separated from  $\text{PhNH}_3\text{Cl}$



with H<sub>2</sub>O. 2 mols. PhNHPr + 1 mol (COCl)<sub>2</sub> treated as in (a) separated a small amount of a brown compound and on evaporation gave a brown syrup which crystallized from

EtOH gave impure oxalyldi [propionanilide] and unchanged PhNHPr. When 1 mol. PhNHPr + 1 mol. (COCl)<sub>2</sub> were similarly treated I-phenyl-3-methyl-2,4,5-triketotetrahydropyrrole (e), MeHC.CO.CO.NPh.CO, or propionylisatin is formed. Since the product gives H<sub>2</sub>C<sub>2</sub>O<sub>4</sub> on hydrolysis it is thought to be (e). The EtOH mother liquors give a little of an unidentified tetraketopyrrolidine derivative 2 mols. PhCH<sub>2</sub>CONH<sub>2</sub> + 1 mol. (COCl)<sub>2</sub> similarly treated gave HCl and a yellow solid which recrystd. from AcOEt as yellow prisms, C<sub>16</sub>H<sub>11</sub>NO<sub>3</sub> (f), m. 235°, softens 215-20°, mol. weight by Lands-berger's b. p. method 260 (calculated 265). Another compound, m. 114-6°, was separated which was thought to be unchanged PhCH<sub>2</sub>CONH<sub>2</sub>, m. 117°. (f) was either 1,3-diphenyl-2,4,5-triketotetrahydropyrrole (oxalphenylacetic anil), PhHC.CO.CO.NPh.CO, or phenylacetyl isatin; the color indicated a derivative of isatin; on hydrolysis it gave H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>, which is not given by isatin, and it did not give a blue color with concentrated H<sub>2</sub>SO<sub>4</sub>

as

isatin derivs. do, so that the former constitution is accepted. 1 mol. PhCH<sub>2</sub>CONH<sub>2</sub> + 1 mol. (COCl)<sub>2</sub> gave the same compound. Com. PhNHCO<sub>2</sub>Et (g) was purified by distilling, dissolving in absolute EtOH and precipitating with excess of H<sub>2</sub>O

by which (g) was separated as a turbid liquid, which was inoculated, crystallized,

powdered, and dried in vacuo; it m. 51-2°. 2 mols. (g) + 1 mol.

(COCl)<sub>2</sub> treated as for (f) gave HCl; after agitating with H<sub>2</sub>O unchanged

(g) separated overnight. The mother liquor gave H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>. In a 2nd experiment H<sub>2</sub>O

was not added and the mixture solidified in 4-5 days. Dissolved in petr. ether fine needles, m. 139-40°, sepd; the H<sub>2</sub>O solution colors Congo paper blue; hydrolysis with KOH gives H<sub>2</sub>C<sub>2</sub>O<sub>4</sub>. In another experiment in which most of the C<sub>6</sub>H<sub>6</sub> was 1st distilled off N-carbeth-oxyphenyloxamic acid (h), EtO<sub>2</sub>CNPhCOCO<sub>2</sub>H, was obtained, m. 140-1° (h) is formed by the action of moisture on the EtO<sub>2</sub>CNPhCOCOCl first formed. 1 mol. CO(NHPh)<sub>2</sub> + 1 mol. (COCl)<sub>2</sub> give diphenylparabanic acid, PhN.CO.CO.NPh.CO woolly needles, m. 206-7°. (CONHPh)<sub>2</sub> does not react with (COCl)<sub>2</sub>; with KOH it hydrolyzes slowly. 1 mol. (COCl)<sub>2</sub> + 4 mols. PhNHMe in dry Et<sub>2</sub>O gave a powder of PhNHMe.HCl + (CONMePh)<sub>2</sub> from which the latter was separated with H<sub>2</sub>O; it m. 111-1.5°; hydrolysis with KOH is much more difficult than for (CONHPh)<sub>2</sub>; the compound described by Norton and Livermore (Ber. 20, 2273), b. 249-51°, is not (CONMePh)<sub>2</sub>. 2 mols. CO(NHPh)<sub>2</sub> + 1 mol. (COCl)<sub>2</sub> treated as for (h) gave oxalyldi[phenylureide], (CONHCONHPh)<sub>2</sub>, silky needles, m. :238-40°, gives NH<sub>3</sub> + H<sub>2</sub>C<sub>2</sub>O<sub>4</sub> on hydrolysis with KOH, does not give the biuret test. The EtOH mother liquors also gave some phenylparabanic acid, PhN.CO.CO.NH.CO, shining scales, m. 208°. By treating 1 mol (COCl)<sub>2</sub> with 2 mols. H<sub>2</sub>NCHPhCO<sub>2</sub>Me, Meyeringh (J. prakt. Chemical 32, 20) obtained 2 isomeric compds., methyl oxalyldi[α-phenyl-α-aminoacetate], which F. has prepared and subjected to the action of liquid NH<sub>3</sub>. 5 g. of the isomer (m. 168°) treated for 2 days in a pressure flask with liquid NH<sub>3</sub> at 8-12° gave on evaporating the NH<sub>3</sub> a white product soluble in PhNO<sub>2</sub> from which oxalyldi-[α-phenyl-α-aminoacetamide] (i), (CONH-CHPhCONH<sub>2</sub>)<sub>2</sub>, seps. as woolly, colorless crystals, m. 297° (browns 275°), insol. in H<sub>2</sub>O but gives the biuret reaction. The isomer (m. 196-7°) gives similarly the isomer of (i), M. 282° (browns 245°), gives a biuret reaction; boiled with AcBr the compds. were recovered unchanged so that the compds.

comparable to the peptides containing the oxalyl group could not be obtained in this way. 2 mols.  $\text{PhNHCH}_2\text{CO}_2\text{Et} + 1 \text{ mol. } (\text{COCl})_2$  treated as for (f) separated colorless needles of ethyl oxalyldi [phenylglycocolate] + benzene (j),  $(\text{CONPhCH}_2\text{CO}_2\text{Et})_2 \cdot \text{C}_6\text{H}_6$ , m.  $105-6^\circ$ ; 4 g. (j) were distilled with excess of  $\text{H}_2\text{O}$ ; a thick, oily liquid free from the odor of  $\text{C}_6\text{H}_6$  remained in the flask, and when crystallized from petr. ether gave (j) free from  $\text{C}_6\text{H}_6$  as needle clusters, m.  $87-8^\circ$ . (j) treated with  $\text{KOH}$  for 0.5 hr. gives only a trace of  $\text{H}_2\text{C}_2\text{O}_4$ ; Prolonged heating gives more  $\text{H}_2\text{C}_2\text{O}_4$ . In attempting to prepare the diamide corresponding to (j) by treating with liquid  $\text{NH}_3$  (j) was decomposed into phenylglycinamide and oxamide, and since the latter was recovered quant. the fact that it was an  $\text{H}_2\text{C}_2\text{O}_4$  derivative was proved. Since the rupture of the oxalyl group in (j) proceeds with difficulty it seemed possible that treating (j) carefully with dilute  $\text{KOH}$  would give oxalyldi[phenylglycocol] (k),  $(\text{CON-PhCH}_2\text{CO}_2\text{H})_2$ . Heating 4 g. (j) in 25 cc. 10%  $\text{KOH}$  on the  $\text{H}_2\text{O}$  bath, cooling and adding excess of dilute  $\text{H}_2\text{SO}_4$  separated (k) as an oil which crystallized in shining needles, m.  $217-9^\circ$ ; titrations with  $\text{NaOH}$  (litmus indicator) showed it to be dibasic. 1 mol. ethylenedi-carbominate in  $\text{C}_6\text{H}_6$  solution separated On Cooling 2,3-diketo-1,4-N-dicarbomethoxypiperazine,  $\text{MeO}_2\text{CN.CO.CO.N}(\text{CO}_2\text{Me}).\text{CH}_2.\text{CH}_2$ , brilliant crystals, m.  $167^\circ$  (softens  $158^\circ$ ), gives  $\text{H}_2\text{C}_2\text{O}_4$  on hydrolysis with  $\text{KOH}$ ; treated with liquid  $\text{NH}_3$  at room temperature it gives a precipitate

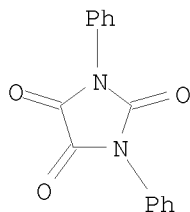
which recrystd. from boiling  $\text{PhNO}_2$  gives oxamide and a compound  $\text{C}_7\text{H}_{12}\text{N}_4\text{O}_5$  which may be  $\text{H}_2\text{NCONHCH}_2\text{CH}_2\text{NH}(\text{CO}_2\text{Me})\text{COCONH}_2$ . 1 mol. diacetylene-diamine + 1 mol.  $(\text{COCl})_2$  boiled with dry  $\text{C}_6\text{H}_6$  gives a white insol. product which washed with boiling absolute  $\text{EtOH}$  and crystallized from  $\text{AcOH}$  gave diacetyleneoxamide,  $\text{AcN.CO.CO.NAc.CH}_2\text{CH}_2$ , as silvery leaves, m.  $204-5^\circ$ . F. in his summary discusses the biuret reaction given by oxamide and certain oxalic derivs. According to Schiff (Ann. 229, 236) 2  $\text{CONH}_2$  groups or 1  $\text{CONH}_2$  and 1  $\text{CONHX}$  group are necessary for this reaction, while with 2  $\text{CONHX}$  groups it does not take place. F. has listed derivs. of oxamide prepared by himself, by M. (l. c.), by B. (l. c.) and G. (l. c.) and shows that the biuret reaction occurs with sym-dialkyloxamides having the group  $(\text{CONHalk})_2$  only when the amide function appears again in the alkyls as  $\text{CONH}_2$  or as  $\text{CONHX}$ .

IT 6488-59-1P, Parabanic acid, 1,3-diphenyl-

RL: PREP (Preparation)  
(preparation of)

RN 6488-59-1 HCAPLUS

CN Imidazolidinetrione, diphenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 524 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1915:4001 HCAPLUS  
DOCUMENT NUMBER: 9:4001

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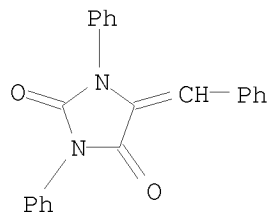
ORIGINAL REFERENCE NO.: 9:597a-e  
TITLE: Hydantoins. XXIX. Geometrical isomerism in the  
hydantoin series  
AUTHOR(S): Johnson, T. B.; Hadley, S. E.  
CORPORATE SOURCE: Yale Univ.  
SOURCE: Journal of the American Chemical Society (1915), 37,  
171-7  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB In order that geometrical isomerism may be shown in an unsatd. C compound 2  
fundamental conditions must be fulfilled: 1st, the mol. must contain a  
double bond between 2 of its C ats., and 2nd, the 2 radicals linked to  
each of these 2 C ats. must be different. Theor., the accepted structural  
formula of an aldehyde-hydantoin condensation product fulfills both these  
conditions and consequently a hydantoin of this type might be expected to  
occur in cis- and trans-modifications. Several unsatd. compds. of this  
type have been prepared in this laboratory but hitherto the occurrence of more  
than 1 modification was not detected. J. and H. discuss the 1st case of  
this type of isomerism, so far observed in the hydantoin series.  
1,3-Diphenyl-4-benzal-2-thiohydantoin was found by Wheeler and Brautlecht  
to m. 194°. Having had occasion to prepare this hydantoin J. and H.  
were surprised, on repeating this experiment, to be able to isolate an isomeric  
product which m. several degrees lower than that described by W. and B.  
The high m. form (m. 197°, instead of 194°), when  
desulfurized with CH<sub>2</sub>ClCO<sub>2</sub>H and hydrolyzed with HCl, gives geometrical  
isomers of 1,3-diphenyl-4- benzalhydantoin, m. 192° and  
152°, resp. The higher m. modification, represented as the  
trans-form, is the chief product of the reaction. It was further observed  
that these same 2 isomeric modifications are also formed by condensation  
of 1,3-diphenylhydantoin with BzH, the condensation being easily  
accomplished with smooth formation of hydantoins. The trans-modification  
is the chief product of the reaction. Both forms were isolated and their  
identity with the 2 hydantoins obtained by desulfurization of the  
thiohydantoin completely established. Structural formulas and exptl. work  
are given.

IT 4514-33-4, Hydantoin, 5-benzal-1,3-diphenyl-  
(geometrical isomers of)

RN 4514-33-4 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3-diphenyl-5-(phenylmethylene)- (CA INDEX NAME)

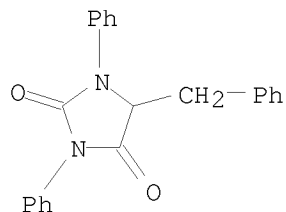


L4 ANSWER 525 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1914:26208 HCAPLUS  
DOCUMENT NUMBER: 8:26208

Updated Search

10501317

ORIGINAL REFERENCE NO.: 8:3796a-e  
TITLE: Hydantoins. XXVIII. Synthesis of 1,3,4-trisubstituted hydantoins from diethyl anilinomalonate  
AUTHOR(S): Johnson, Treat B.; Shepard, Norman A.  
CORPORATE SOURCE: Yale Univ.  
SOURCE: Journal of the American Chemical Society (1914), 36, 1735-42  
CODEN: JACSAT; ISSN: 0002-7863  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable  
AB Cf. C. A., 8,3295. The following new compds. are described: Diethyl benzylanilinomalonate (a), in 93% yield from Na, PhNHCH(CO<sub>2</sub>Et)<sub>2</sub> and PhCH<sub>2</sub>Cl in alc., b50 257-60° (considerable decompose), hydrolyzed by KOH in hot 50% alc. to the dipotassium salt, hexagonal plates from 50% alc., m. when heated a long time at 295-30°, quant. converted by aqueous HCl into the free acid (b), evolves CO<sub>2</sub> immediately on heating in alc., seps. from a cold aqueous solution of the salt on addition of HCl in clusters of radiating needles, m. 170-3°, loses CO<sub>2</sub> 190-200°. Disilver salt, amorphous precipitate, unstable on heating. α-Anilino-B-phenylpropionic acid (c), best obtained by b. (b) a few min. in dilute or absolute alc., glistening plates, contracts 165°, m. 170-3°. Ethyl ester, hexagonal prisms, or blocks, from alc., m. 48-9°, b12 206-9°. (c) heated 5 hrs. at 130-5° with PhNCS, gives 1,3-diphenyl-2-thio-4-benzylhydantoin, needle-like prisms from alc., m. 129-30°, insol. in warm dilute NaOH, and α-benzylindoxyl, prismatic cubes from AcOH, m. 271-2° (yield very small). With PhNCO at 140-50° (c) likewise gives the indoxyl and 1,3-diphenyl-4-benzylhydantoin, extremely soluble in organic solvents and could not be obtained in crystalline form; the crude product m. 58-62°; it is also obtained by desulfurizing the 2-thio compound with aqueous ClCH<sub>2</sub>CO<sub>2</sub>H at 150°. 2-Thio-5-benzoyl-7-phenyluramil, in 35% yield from (a) and CS(NH<sub>2</sub>)<sub>2</sub> digested with alc. NaOEt, prismatic blocks from alc., m. 219-20° and soon decompose  
IT 861597-36-6P, Hydantoin, 5-benzyl-1,3-diphenyl-  
RL: PREP (Preparation)  
(preparation of)  
RN 861597-36-6 HCAPLUS  
CN Hydantoin, 5-benzyl-1,3-diphenyl- (1CI) (CA INDEX NAME)



L4 ANSWER 526 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1913:17683 HCAPLUS  
DOCUMENT NUMBER: 7:17683  
ORIGINAL REFERENCE NO.: 7:2574h-i,2575a-f

Updated Search

TITLE: Synthesis of Parabanic and Substituted Parabanic Acids  
 AUTHOR(S): Biltz, Heinrich; Topp, Ernst  
 CORPORATE SOURCE: Univs. Kiel and Breslau  
 SOURCE: Berichte der Deutschen Chemischen Gesellschaft (1913),  
 46, 1387-1404  
 CODEN: BDCGAS; ISSN: 0365-9496

DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 7:17683

AB cf. C. A., 4, 2647. Parabanic and thioparabanic acids are in general smoothly obtained by treating finely pulverized ureas or thioureas in 30-40 Parts anhydrous Et<sub>2</sub>O with somewhat more than the calculate amount of (COCl)<sub>2</sub>, heating or b. more or less, depending on the velocity of the reaction. HCl is the only by-product formed except in the case of urea itself and its mono-Me and -Et derivs. (cf. also Bornwater, C. A., 6, 2743). Urea (1 g.) after 3 hrs. b. gives 0.2 g. parabanic acid, 1 g. (CO<sub>2</sub>H)<sub>2</sub> and 0.2-0.3 g. oxalyl diureide (Grimaux, Bulletin society chim., [2]

32, 120). MeNHCONH<sub>2</sub> (4.45 g.) gave after 1 hr. b. 5.3 g. methylparabanic acid (a), m. 153-4°, b<sub>13</sub>, 201-2°, rhombic, (110), (010), (010), (011), slowly volatilizes 105°, and 3-4 g. oxalyl dimethylureide, needles from glacial AcOH, m. 230-2° (about 60% is decompose into MeNHCONH<sub>3</sub> and (a) during the crystallization). With b., Ac<sub>2</sub>O after 6 hrs., (a) gives 1-methyl-3-acetylparabanic acid (90% yield), leaflets, m. 183-5°, also obtained in 80% yield from MeNHCONHAc and (COCl)<sub>2</sub> in b. Et<sub>2</sub>O or Ac<sub>2</sub>O, converted practically quant. into (a) by saturating its alc. solution with HCl gas. Dimethylparabanic acid is obtained from CO(NHMe)<sub>2</sub> and (COCl)<sub>2</sub> in 70%, from ClOCCO<sub>2</sub>Et in 90% yield; in the latter case, if AcOEt is used as solvent, there is also formed dimethylurea hydrochloride, C<sub>8</sub>H<sub>8</sub>O<sub>2</sub>N<sub>2</sub>.HCl, needles, m. 124°. Monomethylurea hydrochloride, from the base in AcOEt and HCl gas, sinters 70°, m. 85-7°, loses HCl 125°, very hygroscopic. Ethylparabanic acid (84% yield), m. 127-8°, b<sub>13</sub> 195-6°, not identical with the product described by Andreasch under the same name (Ber., 31, 138); there is formed as byproduct (15% of the EtNHCONH<sub>2</sub> used) oxalyl diethylureide, needles, m. 220-2° (decompose). 9-Ethyluric acid glycol (C. A., 6, 2619) isomerizes in b. H<sub>2</sub>O into 3-ethyl-5-hydroxyhydantoylurea which, on evaporation with HCl, gives 3-ethyleaffolide and this in b. H<sub>2</sub>O loses CO<sub>2</sub> and forms 3-ethyl-5-hydroxyhydantoylaniide. None of these products were isolated in solid form but that they were formed is shown by the fact that the final solution gives with K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>-H<sub>2</sub>SO<sub>4</sub> ethylparabanic acid which can be easily obtained by direct oxidation of the glycol. Diethylparabanic acid, from CO(NHEt)<sub>2</sub> and (COCl)<sub>2</sub> after 0.5 hr. b. (78% yield), or by the degradation of 7,9-diethyluric acid glycol (C. A., 5, 3070), flat needles, m. 49-51°, b<sub>13</sub> 138-40°. Phenylparabanic acid (88% yield after 3 hrs. b.), sinters 208°, m. 213-4°. Diphenylparabanic acid (yield, quant. after 3 hrs. b.), m. 202°. Benzylparabanic acid (yield, 94% after 1.5 hrs. b.), m. 167-9°. p,p'-Bisbromophenylparabanic acid (83% yield after 15 hrs. b.). Thioparabanic acid (10% yield after 10 hrs. b.), red-yellow, indistinctly crystalline, m. 215-20° (decompose), converted through the disilver salt into dimethylthioparabanic acid, which is also obtained in 50% yield from CS(NHMe)<sub>2</sub> and (COCl)<sub>2</sub> after 1.5 hrs. b. Repetition of Michael's work (J. Prakt. Chemical, 49, 35) showed that his "thioparabanic acid" is really Neneki's 2CS(NH<sub>2</sub>)<sub>2</sub>.(CO<sub>2</sub>Et)<sub>2</sub> (Ber., 7, 780). Ethylthioparabanic acid (0.45 g. from 2 g. EtNHCSNH<sub>2</sub> after 5 hrs. b.), m. 65-9°, converted by 3

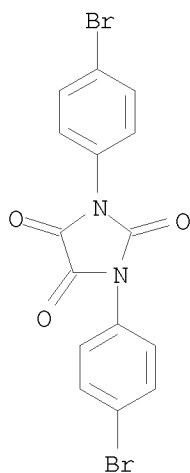
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hrs. b. with alc. AgNO<sub>3</sub> into ethylparabanic acid. Diphenylthioparabanic acid (yield, 94% after 2 hrs. b.), m. 228-30°.

IT 861070-46-4P, Parabanic acid, bis(p-bromophenyl)-  
RL: PREP (Preparation)  
(preparation of)

RN 861070-46-4 HCAPLUS

CN Parabanic acid, bis(p-bromophenyl)- (1CI) (CA INDEX NAME)



L4 ANSWER 527 OF 527 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1910:1729 HCAPLUS

DOCUMENT NUMBER: 4:1729

ORIGINAL REFERENCE NO.: 4:307e-i,308a-h

TITLE: Glycols and Glycol Ethers of Glyoxalones and Their Isomerism

AUTHOR(S): Biltz, H.

CORPORATE SOURCE: Univ. Kiel

SOURCE: Justus Liebig's Annalen der Chemie (1910), 368, 156-242  
CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

OTHER SOURCE(S): CASREACT 4:1729

GI For diagram(s), see printed CA Issue.

AB 4,5-Diphenyl-4,5-dihydroxy-2-oxotetrahydroglyoxaline (I), is prepared by treating diphenylglyoxalone in AcOH with concentrate HNO<sub>3</sub>. Hard rhombic crystals, m. about 170°. The use of KMnO<sub>4</sub> yields a substance provisionally called "Rhombenstoff," C<sub>17</sub>H<sub>18</sub>O<sub>3</sub>N, thick rhombic tables. Syn-4,5-diphenyl-4,5-diethoxy-2-oxotetrahydroglyoxaline, C<sub>21</sub>H<sub>28</sub>O<sub>4</sub>N<sub>2</sub>, is prepared by treating diphenylglyoxalone in absolute alc. with Br or with concentrate HNO<sub>3</sub>. Long pointed prisms, contains alc. which it loses above 90° and then, m. 185-6°. Shaking with MeOH removed EtOH of crystallization but substituted MeOH. Anti-4,5-diphenyl-4,5-diethoxy-2-oxotetrahydroglyoxaline is obtained by recrystallizing the syn compound from boiling alc. Four cornered obliquely cut prisms, m. 225° (long thermometer), m. 230-2° (short ther.). Loses 1 MeOH at

Updated Search

100°. 4,5-Diphenyl-4,5-dichloro-2-oxotetrahydroglyoxaline, C<sub>12</sub>H<sub>28</sub>O<sub>4</sub>N<sub>2</sub>, is obtained by leading dry Cl into a suspension of diphenylglyoxalone in absolute CHCl<sub>3</sub>. Thin pale yellow prisms, turn violet in light. 4,5-Diphenyl-5-ethoxyisoglyoxalone (II), obtained from the ethyl ethers by heating. Hard cubical crystals, m. 185°. Monacetate, C<sub>19</sub>H<sub>18</sub>O<sub>3</sub>N<sub>2</sub>, crystalline, m. 172-3°. Oxidation of (II) with CrO<sub>3</sub> yields dibenzoylurea. Reduction with Zn dust gives 4,5-diphenylglyoxalone. The 4,5-dichloride is also prepared by leading dry HCl into a CHCl<sub>3</sub> solution of diphenyl-5-ethoxyisoglyoxalone whereas saturation of this solution cooled by

ice

with Cl yields 4,5-diphenyl-5-ethoxy-3,4-dichloro-2-oxotetrahydroglyoxaline C<sub>17</sub>H<sub>16</sub>O<sub>2</sub>N<sub>2</sub>Cl<sub>2</sub>, white crystals.

Syn-4,5-diphenyl-4,5-dimethoxy-2-oxotetrahydroglyoxalone (with MeOH of crystallization), C<sub>18</sub>H<sub>22</sub>O<sub>4</sub>N<sub>2</sub>, ill-formed crystals, m. 118° (decompose).

Shaken with EtOH at room temperature the compound loses MeOH. Now flat

prisms,

m. 115°, losing MeOH, then, m. 179°. Anti-4,5-diphenyl-4,5-dimethoxy-2-oxotetrahydroglyoxalone, C<sub>18</sub>H<sub>22</sub>O<sub>4</sub>N<sub>2</sub>, hard octahedra, decompose 214-5°. Loses 1 MeOH in vacuo at 70-80°, forming long

needles, m. 217° (decompose). 4,5-Diphenyl-5-methoxyisoglyoxalone, C<sub>16</sub>H<sub>14</sub>O<sub>2</sub>N<sub>2</sub>, small hard rhombs, m. 179-80°. Monacetate, C<sub>18</sub>H<sub>16</sub>O<sub>3</sub>N<sub>2</sub>, prisms, m. 180°. 4,5-Diphenyl-4,5-dihydroxy-1-methyl-2-oxotetrahydroglyoxalone, C<sub>16</sub>H<sub>16</sub>O<sub>3</sub>N<sub>2</sub>, prisms, m. 150° (decompose).

Boiled with alc. alkali gives 5,5-diphenyl-3-methylhydantoin, m.

216-7°. Syn-4,5-diphenyl-4,5-dimethoxy-1-methyl-2-

oxotetrahydroglyoxalone, C<sub>18</sub>H<sub>20</sub>O<sub>3</sub>N<sub>2</sub>, crystals, m. 110°. Loses 1 mol. MeOH in vacuo at 105-10°. Anti compound, long prisms, m.

188° (decompose). 4,5-Diphenyl-1-methyl-5-methoxyisoglyoxalone, C<sub>17</sub>H<sub>10</sub>O<sub>2</sub>N<sub>2</sub>, hard crystals, m. 152°, obtained by heating either of the 2 previous compounds. Ethoxy ether, rhombs, m. 155°.

Diphenyl-1,3-dimethylglyoxalone is best prepared by methylating diphenylglyoxalone with Me<sub>2</sub>SO<sub>4</sub>. Oxidation with HNO<sub>3</sub> yields

4,5-diphenyl-4,5-dihydroxy-1,3-dimethyl-2-oxotetrahydroglyoxalone.

Bromination in absolute EtOH gives the 4,5-dibromide, C<sub>17</sub>H<sub>16</sub>O<sub>2</sub>N<sub>2</sub>Br<sub>2</sub>, red rhombic tables, m. 140° (decompose). Syn-4,5-bis-p-bromophenyl-4,5-

dihydroxy-2-oxotetrahydroglyoxalone, C<sub>15</sub>H<sub>12</sub>O<sub>3</sub>N<sub>2</sub>Br<sub>2</sub>, is prepared from the glyoxalone by HNO<sub>3</sub>. Fine tables, m. 320° (decompose). Diethoxy

ether, C<sub>19</sub>H<sub>20</sub>O<sub>3</sub>N<sub>2</sub>Br<sub>2</sub>, m. 125-30° (decompose). When it contains EtOH and consists of tables, decompose 121-2°. Anti form, prisms, m.

266-8° (decomp). Boiled with alc. KOH it gives

bisbromophenylhydantoin. 4,5-Bis-p-methoxyphenyl-4,5-dihydroxy

-1,3-dimethyl-2-oxotetrahydroglyoxalone, C<sub>19</sub>H<sub>22</sub>O<sub>5</sub>N<sub>2</sub>, is obtained by

boiling an alc. solution anisil and dimethylurea with KOH. Prisms, decompose

193°. Heated above 200° it gives 5,5-bis-p-methoxyphenyl-

N,N-dimethylhydantoin, m. 114°. Tetraphenylglyoxalone, m.

207°, was obtained by heating benzoin and diphenylurea in AcOH.

Dibenzoyldiphenylurea, C<sub>27</sub>H<sub>20</sub>O<sub>3</sub>N<sub>2</sub>, six-sided leaves, m. 200°

(decompose). Tetraphenylglyoxaloneglycol, C<sub>27</sub>H<sub>22</sub>O<sub>3</sub>N<sub>2</sub>, crystals with rhombic and six-sided faces, decompose 178°.

1,3,5,5-Tetraphenylhydantoin,

C<sub>27</sub>H<sub>20</sub>O<sub>2</sub>N<sub>2</sub>, rhombic laminae, m. 186°. Bis-p-bromophenylurea,

C<sub>18</sub>H<sub>10</sub>O<sub>2</sub>N<sub>2</sub>Br<sub>2</sub>, is obtained by boiling a mixture of tetraphenylglyoxalone,

diphenylurea and Br in AcOH. Colorless thin tables, decompose about

330°. 4,5-Diphenyl-1-ethyl-2-oxotetrahydroglyoxalone, C<sub>17</sub>H<sub>16</sub>O<sub>2</sub>N<sub>2</sub>,

m. 260°. Alc. solution shows blue fluorescence. Monacetate,

C<sub>19</sub>H<sub>18</sub>O<sub>2</sub>N<sub>2</sub>, needles, m. 122-3°. 4,5-Diphenyl-4,5-dihydroxy-1-ethyl-

2-oxotetrahydroglyoxalone, C<sub>17</sub>H<sub>18</sub>O<sub>3</sub>N<sub>2</sub>, hexagonal tables, m. 191-2°

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with slight decompose 5,5-Diphenyl-3-ethyl-2,4-dioxotetrahydroglyoxaline, C<sub>17</sub>H<sub>16</sub>O<sub>2</sub>N<sub>2</sub>, is obtained (1) from the corresponding glycol, (2) from benzil and ethylurea, (3) or from diphenyl-1-ethylglyoxalone by oxidation with O; m. 157° (see Biltz, Ber., 41, 1386). 4,5-Diphenyl-4,5-dimethoxy-1-ethyl-2-oxotetrahydroglyoxaline, C<sub>19</sub>H<sub>22</sub>O<sub>3</sub>N, crystals, m. 81°. Recrystn. produces the anti form, m. 185°. 4,5-Diphenyl-1-ethyl-5-ethoxyisoglyoxalone, C<sub>19</sub>H<sub>20</sub>O<sub>2</sub>N<sub>2</sub>, prisms, m. 104°. 4,5-Diphenyl-1-monethylacetylenediurein, C<sub>18</sub>H<sub>18</sub>O<sub>2</sub>N<sub>4</sub>, felted needles, m. 284-5°. Diacetate, C<sub>22</sub>H<sub>22</sub>O<sub>4</sub>N<sub>4</sub>, prisms, m. 220° (decompose). 4,5-Diphenyl-1,3-diethyl-2-oxotetrahydroglyoxaline, C<sub>19</sub>H<sub>20</sub>O<sub>2</sub>N<sub>2</sub>, many-faced compact crystals, m. 138°. Oxidation with CrO<sub>3</sub> in AcOH gives dibenzoyldiethylurea, C<sub>19</sub>H<sub>20</sub>O<sub>3</sub>N<sub>2</sub>, hexagonal laminae, m. 151-2°. 4,5-Diphenyl-4,5-dihydroxy-1,3-diethyl-2-oxotetrahydroglyoxaline, C<sub>19</sub>H<sub>22</sub>O<sub>3</sub>N<sub>2</sub>, hexagonal crystals, m. 156.5°. 5,5-Diphenyl-1,3-diethyl-2,4-dioxotetrahydroglyoxaline, C<sub>19</sub>H<sub>20</sub>O<sub>2</sub>N<sub>2</sub>, prisms, m. 110°.

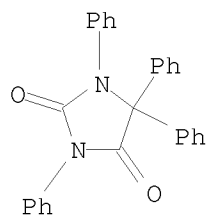
IT 75589-48-9P, Hydantoin, 1,3,5,5-tetraphenyl-

RL: PREP (Preparation)

(preparation of)

RN 75589-48-9 HCAPLUS

CN 2,4-Imidazolidinedione, 1,3,5,5-tetraphenyl- (CA INDEX NAME)



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L1 STRUCTURE UPLOADED

L2 28 S L1

L3 1450 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 21:41:46 ON 16 MAR 2008

L4 527 S L3

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L5 21 L3

=> d l5, 1-21, ibib abs

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Numbers (AN) CA References.

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FILE 'REGISTRY' ENTERED AT 21:37:52 ON 16 MAR 2008

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L2 28 S L1

L3 1450 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 21:41:46 ON 16 MAR 2008

L4 527 S L3

FILE 'CAOLD' ENTERED AT 21:45:26 ON 16 MAR 2008

L5 21 S L4

=> d 15, all, 1-21

L5 ANSWER 1 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA65:2273a CAOLD

TI 1,3-disubstituted 5-alkylthio-5-dialkylaminohydantoins

AU Fedorov, B. P.; Stoyanovich, F. M.; Ivanova, I. A.

DT Patent

TI heterocyclic ethers

AU Martin, Dieter; Weise, A.

DT Patent

PATENT NO.	KIND	DATE
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PI DE 44286

PI SU 179327

IT 4611-43-2	4611-53-4	4612-90-2	5376-15-8	6451-30-5
6488-59-1	6488-60-4	6488-61-5		
6488-78-4	6489-09-4	10529-94-9	15945-88-7	

L5 ANSWER 2 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA65:703c CAOLD

TI reactions of amido phosphites-synthesis of oxazolidine, imidazolidone, and thiazolidine derivs.

AU Mitsunobu, Oyo; Ohashi, T.; Mukaiyama, T.

IT 728-24-5	732-51-4	5679-75-4	6200-45-9
6200-46-0	6200-47-1	6200-88-0	6253-86-7
6514-56-3			

L5 ANSWER 3 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA64:8170d CAOLD

TI reaction of cyclic carbonates with sym. diaryl-substituted ureas and thioureas

AU Gulbins, Erich; Hamann, K.

IT 703-56-0	728-24-5	5198-45-8	5198-46-9	5198-48-1
5198-49-2	5198-55-0	5272-77-5	5272-78-6	
5272-80-0	5272-83-3	5584-36-1		
6669-87-0	106743-33-3			

L5 ANSWER 4 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA64:8163f CAOLD

TI synthesis of N-aryl-substituted 2-oxazolidones

AU Gulbins, Erich; Hamann, K.

IT 122-98-5	703-56-0	708-57-6	2033-32-1	3367-48-4
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Updated Search

10501317

3367-51-9	5198-38-9	5198-39-0	5198-40-3	5198-41-4	5198-42-5
5198-45-8	5198-46-9	5198-47-0	5198-48-1	5198-49-2	5198-51-6
5198-52-7	5198-55-0	5198-56-1	5199-22-4		
5547-22-8	6022-25-9				

L5 ANSWER 5 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA64:3539g CAOLD  
TI reaction of Na phenylacetylde with phenyl isocyanate  
AU Bird, C. W.  
IT 103-71-9 1004-22-4 4514-33-4 4514-34-5 101404-87-9

L5 ANSWER 6 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA63:8254h CAOLD  
TI alcoholysis of 5-nitrosalicylic acid hydrazide  
AU Gupta, G. L.  
IT 133-38-0 946-32-7 1516-85-4 2698-84-2 2698-88-6  
2819-30-9 2819-35-4 2819-40-1 3023-53-8 6488-59-1  
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L5 ANSWER 7 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA62:14680h CAOLD  
TI 4-isonicotinoyl-1,3,4-thiadiazines  
AU Giammanco, Lorenzo  
IT 699-67-2 3157-03-7

L5 ANSWER 8 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA62:14680b CAOLD  
TI syntheses of heterocycles - (LXII) reactions with betaines  
AU Ziegler, Erich; Wittmann, H.; Orlinger, F.  
IT 3156-95-4 3157-02-6 3157-04-8 3157-05-9

L5 ANSWER 9 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA62:2689g CAOLD  
TI thermal degradation of ethylene bis (n-phenylcarbamate)  
AU Chu-Pham-Ngoc-Son  
IT 150-61-8 703-56-0 728-24-5 732-51-4 849-98-9  
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L5 ANSWER 10 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA62:1644e CAOLD  
TI benzimidazole derivs. - (XVI) nitro alcs. and nitrovinyl derivs. of the  
benzimidazoles  
AU Simonov, A. M.; Dalgatov, D. D.  
IT 2154-42-9 2154-43-0 2154-44-1 2154-45-2 2154-46-3  
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L5 ANSWER 11 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA62:476a CAOLD  
TI thermal degradation of C<sub>2</sub>H<sub>4</sub> bis(N-phenylcarbamate)  
AU Beachell, Harold C.; Chu-Pham-Ngoc-Son  
IT 150-61-8 703-56-0 709-93-3 728-24-5 732-51-4  
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L5 ANSWER 12 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA61:16059g CAOLD

Updated Search

10501317

TI preparation of parabanic acids from 1,1,3-trisubstituted ureas via a Hofman  
elimination reaction

AU Stoffel, Paul J.

IT 6171-00-2 21035-66-5 21564-45-4 40408-57-9 63758-73-6  
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L5 ANSWER 13 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA56:8704b CAOLD

TI mercaptoglucimidazoles - (V)

AU Garcia Gonzalez, F.; Fernandez-Bolanos, J.; Paneque Guerrero, A.

IT 728-24-5

L5 ANSWER 14 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA56:8703f CAOLD

TI addition reactions with epoxides

AU Gulbins, Klaus; Hamann, K.

IT 703-56-0 708-57-6 728-24-5 14678-39-8 14678-40-1  
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L5 ANSWER 15 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA56:1444a CAOLD

TI nucleophilic carbene

AU Wanzlick, Hans W.; Schikora, E.

IT 728-24-5 1192-54-7 2179-89-7 4982-02-9 10111-11-2  
40618-98-2 55055-34-0 92800-23-2 93030-22-9 93030-23-0  
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L5 ANSWER 16 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA55:21100e CAOLD

TI carbene chemistry

AU Wanzlick, Hans W.; Schikora, E.

IT 728-24-5 6972-71-0 21006-32-6 40618-98-2 55055-34-0  
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L5 ANSWER 17 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA55:17652h CAOLD

TI 2-oxazolidones

AU Dixon, Stanley; Verbanc, J. J.

PA Du Pont de Nemours, E. I., & Co.

DT Patent

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L5 ANSWER 18 OF 21 CAOLD COPYRIGHT 2008 ACS on STN

AN CA55:17652f CAOLD

TI 2-oxazolidones

AU Dixon, Stanley

PA Du Pont de Nemours, E. I., & Co.

DT Patent

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AN CA53:342c CAOLD  
TI cyclic amidines - (VII) preparation of benzimidazoles from N'-aryl-N-hydroxyamidines  
AU Partridge, Maurice W.; Turner, H. A.  
IT 101-01-9 621-72-7 716-79-0 1527-91-9 1678-25-7  
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108837-61-2 108837-62-3 108837-63-4 108838-67-1 109700-68-7  
110244-22-9 110245-68-6 110513-22-9 110513-23-0 110513-24-1  
110515-13-4 110936-44-2 110936-45-3 111065-53-3 111066-88-7  
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113223-23-7 114352-29-3 114740-96-4 121271-36-1

L5 ANSWER 20 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA52:11014h CAOLD  
TI reactions of orthoesters with aryl isocyanates  
AU Whitehead, Calvert W.; Traverso, J. J.  
IT 5353-96-8 6488-59-1 31274-54-1 100609-49-2  
100614-28-6 100616-61-3 100714-00-9 101115-54-2 102181-89-5  
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L5 ANSWER 21 OF 21 CAOLD COPYRIGHT 2008 ACS on STN  
AN CA51:9781b CAOLD  
TI antiviral activity of glyoxals  
AU Bock, Cornelis A. de; Brug, J.; Walop, J. N.  
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Updated Search